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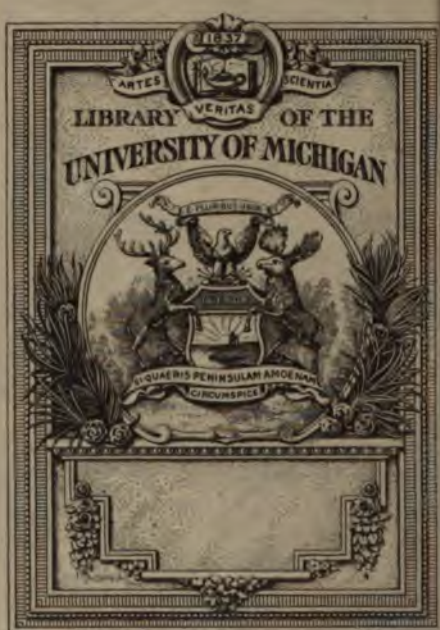
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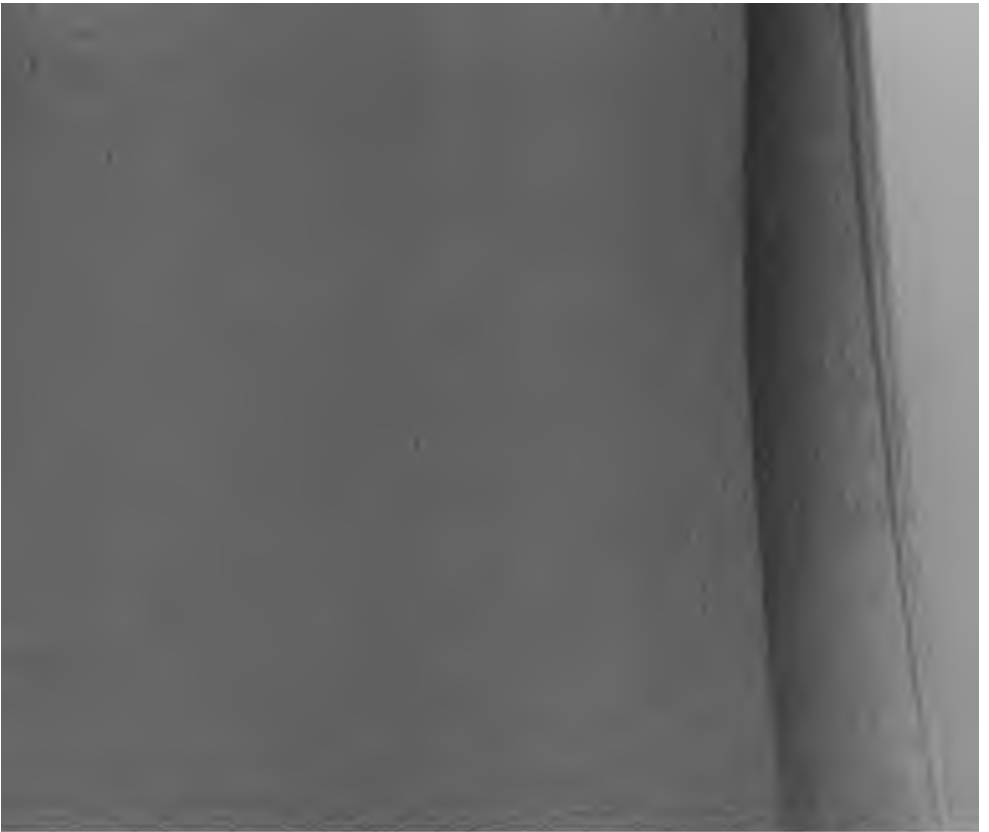
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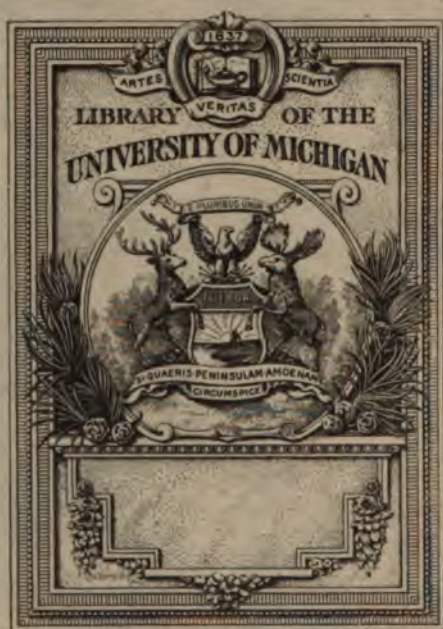
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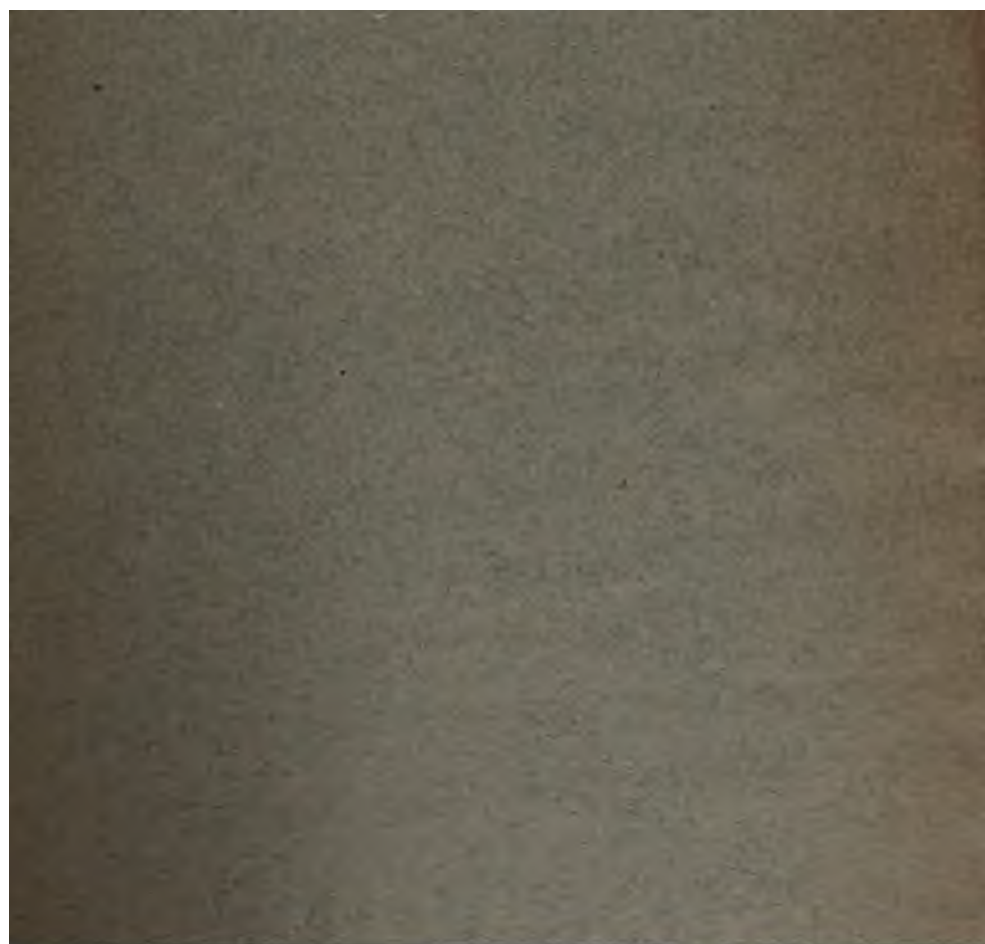
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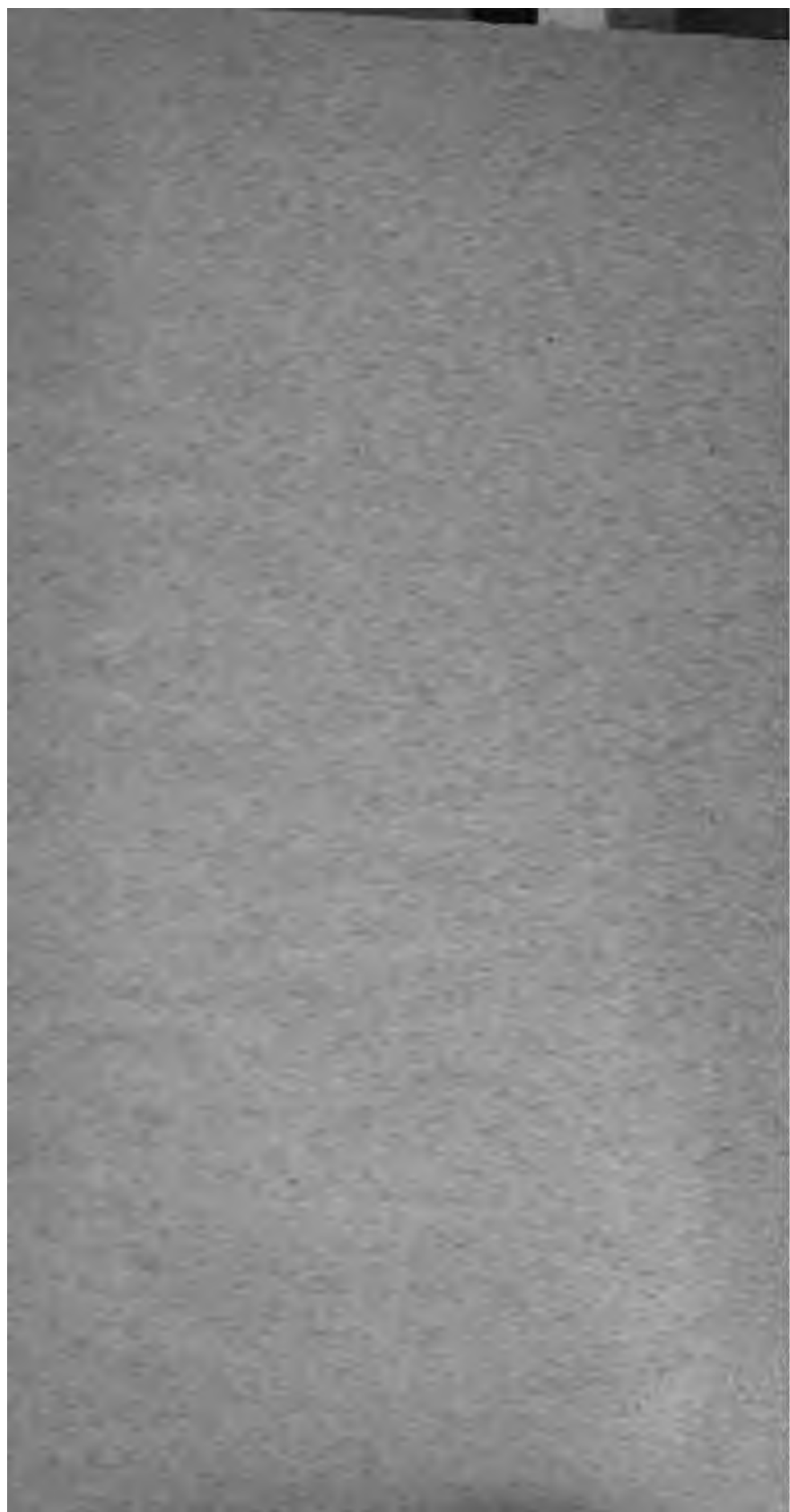












AMERICAN ANNALS
OF
THE DEAF,
97897

EDITED BY

EDWARD ALLEN FAY,

UNDER THE DIRECTION OF

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Committee of the Conference.

VOL. XLII.

WASHINGTON, D. C.

PUBLISHED BY THE CONFERENCE OF SUPERINTENDENTS AND PRINCIPALS OF
AMERICAN SCHOOLS FOR THE DEAF.

1897.

Printed by Gibson Brothers, Washington, D. C.

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AMERICAN ANNALS OF THE DEAF.

VOL. XLII, No. 1.

JANUARY, 1897.

THE THIRD YEAR'S WORK.*—I.

I. LANGUAGE.

BEGIN this year, as you must every one except the first, with a very thorough review of all that your class is supposed to know. Do not look upon the time used in this review as wasted, or as taken from the time you have to teach advance lessons. If your pupils have forgotten, or did not perfectly learn, any of the principles of language contained in Numbers 1 and 2, you can spend your time in school in no better way, in no way that will cause them to do better work during the coming year, than in teaching these principles again. Still, do not waste time on the review. If you take up a lesson, or rather the principle of language taught in one of Miss Sweet's lessons, and find that it is well known, spend no time on it, but go right on. If you find that it is not sufficiently familiar, drill on it until you have recalled it to your pupils, but no longer. There were several subjects taken up last year which we advised should be farther developed when reviewed. Do not forget these now.

It is especially unfortunate that the very pupils who need this review most are usually those who come back to school from one to five weeks late, and so miss most of

* For "The First Year's Work," see the *Annals*, vol. xxxix, pp. 209-225, and vol. xl, pp. 14-30, 137-148; for "The Second Year's Work," see vol. xli, pp. 129-146, 242-251, 274-278.

it. You will have to use your own judgment about these late comers. They are very discouraging to a conscientious teacher, and are the worry of a superintendent's life; but remember that though you are not to blame for this, and ought not to be punished for it, the child is very seldom responsible for it, either. Still, those who are prompt must not be made to wait for these tardy ones. That would be a great injustice. What to do with them is a difficult problem. They know too much to be put back a whole year, and not enough to go on with the class. Talk each case over with the superintendent, and with the teacher of the next class below, and do the best you can. Either the pupil must lose much, or some one, for another's carelessness or indifference, must do a great deal of extra work. Many a pupil who was leading his class has dropped hopelessly to the rear for the rest of his school-life, from one of these absences during the first weeks of a school-year.

Continue the letter-writing, and see that it is kept up to the standard of the class in language. A letter which would have been very commendable a year ago would be poor now.

Practice continually in original language work. Draw out your pupils, as you did last year, about what happened at home, and about their plans for this year. Get as much out of them about these things as you possibly can. Ask all sorts of questions about home and home people. Puzzle your ingenuity to do all this work in written language, using signs only when you cannot possibly do without them. Have your pupils question you about your vacation, and your plans for the year. You will probably have to allow them to use signs freely, if you would have them do this with spirit and freedom.

Begin to get your pupils to put all their ideas about any one thing into language. Tell them, for instance, to write all that they know about cows, and, after they have done

so, make a few suggestions. Half a dozen sentences will be enough at first, and these may have to be drawn out by questions and diagrams. Do not worry to get these foundations for future compositions into any particular form; but only aim to give your pupils some power of connected thought on any given subject, and some ability of expressing that thought in connected language.

When you take your pupils out for a walk, which you ought to do very often, give to each of them a pencil and paper, and get them to take notes of what they see. Do this by taking notes yourself, by letting them read these, and telling them what they are for. When they have written an account of what they did and saw, write such an account yourself, using the notes you have taken, so that they will learn to use those that they take. Try to preserve the individuality of each pupil in these notes. Let them be the notes of each child, and not yours, or those of the brightest pupil in the class.

Encourage them to ask questions—in writing, of course, if they cannot speak—of people whom they meet, and to think about the answers they get. Teach them the questions we usually ask of strangers or visitors, being sure to make these proper and polite. Any interesting information you get in this way may be used at once for practice on the direct quotation, which needs a great deal. As material for language-lessons, you may get a return in part for the loss of time which visitors frequently occasion. Have your children describe them, tell what they did and said, etc. Have these exercises, after the language is all corrected, dated and copied into a book to be preserved.

Lesson I.

In this lesson Miss Sweet takes up the passive voice, but, unfortunately, she evidently thinks that the teacher of a class which has gone thus far needs very little direction from her.

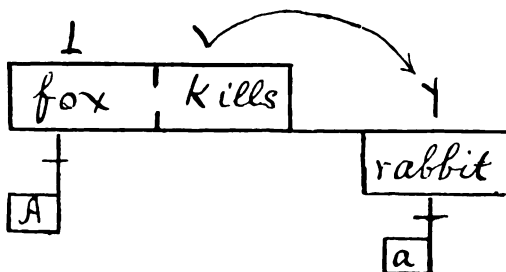
I should begin the passive voice with the same tense with which we began the active—the habitual present. My reason for this is that I hope our pupils have formed the habit of taking this tense as the starting point for all modifications of the verb, as it is the root form, and we want them to start from the same point to form the passive voice, especially as in this tense the change of form is most conspicuous. You may teach the past and future tenses almost immediately after, if you wish, and I should recommend that no great interval of time be allowed to pass before you do teach them.

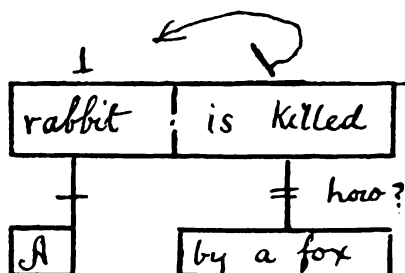
Possibly some incident may have happened in which the actor is unknown, or where he is of small importance as compared with the act, and this may enable you to make your children feel a need for the passive form of expression; but most probably you will have to teach it simply as another form of expressing something they already know how to express in the active voice. Many hearing people use the passive very sparingly, preferring to say, "Somebody stole my watch last night," rather than, "My watch was stolen last night." I have even seen a long and presumably carefully prepared scheme of teaching language to deaf children in which the passive voice was given just one line.

Give your pupils a simple sentence in the active voice, and then the same thing in the passive, and explain each by diagrams:

"A fox kills a rabbit."

"A rabbit is killed by a fox."





Explain clearly exactly how each word of the first sentence is changed in place and form to make the second. Place the second diagram under the other and draw lines from one to the other to show these changes. Give sentences with pronouns instead of nouns, so as to bring out the change of case clearly, as: "I kick him," "He is kicked by me."

Give some examples, also, with a plural object after the active verb, and explain that when this is the case the passive verb must be put in the plural also.

"A fox kills rabbits."

"Rabbits are killed by a fox."

Take up the past and future tenses very soon :

A fox killed a hen.

A hen was killed by a fox.

A fox will kill a hen.

A hen will be killed by a fox.

Write on a card, or in some place where it can remain for a long time in sight, the forms of the verb in the active and passive, as :

Active.

Passive.

I kill

am killed

you kill

are killed

he kills

is killed

we, you, they, kill

are killed

will kill

will be killed

killed

was killed

Active.

am killing

is killing

are killing

Passive.

am being killed

is being killed

are being killed

Give a great deal of practice ; at first by writing one form, and having the pupils write the other ; and then by spelling, and by having them write both forms from the same action. Be sure and have them changed from the passive to the active, as well as the other way.

Give some examples where pronouns are necessary in one form instead of nouns in the other, and explain why.

Henry's mother scolded him.

Henry was scolded by his mother.

Explain the use of the passive form when the agent is not given. We may say, "John's slate is broken," because we do not care, or know, or wish to tell, who broke it.

Teach the questions "by whom?" and "by what?" These questions apply to this last form of the passive sentence more than to the one where the agent is given. "By whom was John's slate broken?" The answer may be the name of the breaker ; or, "I do not know ;" or, "I will not tell." Have these questions in the passive form changed to the corresponding questions in the active.

Give plenty of practice on the passive form of the verb with the indirect object after it. If the different parts of the sentence are clearly understood, there will be very little trouble ; but without some practice confusion is apt to occur. If you have used diagrams faithfully, this is one of the many places where you will reap your reward. Without them it would be a difficult task to guide a deaf child through these changes :

John gave an apple to Mary.

John gave Mary an apple.

An apple was given Mary by John.

An apple was given by John to Mary.

Mary was given an apple by John.

Explain that intransitive verbs have no passive. This is very easily done by giving a sentence and diagram. It is easy, but, like everything else, it will not do to take it for granted that our children know it, until we have taught it.

Lesson II.

There is very little trouble in inducing our pupils to use parts of the verbs as nouns or adjectives. The trouble lies in the very opposite direction. As soon as you begin with certain parts of the verb, they take possession of the whole, and work it very hard. You begin to teach them, "Nora is very fond of skating," and, before you are half through, they are writing, "John was fond of fought," "Mary is fond of cries," "Henry was a black eye by fall," "Peter is a very eat."

In fact, the brightest pupils seem to take the most pleasure in violating all the precepts that you have drilled into them in the past. The only help for this is drill. It will not take you long to tame the first wild freedom of their flight. Tell them that they can only use the form ending in *ing* and the infinitive as nouns, and the *ing* and perfect participle as adjectives. They are familiar with *ing* and the infinitive, and you can show them the list of verbs on page 120 for the irregular perfect participles.

You will have to give a great deal of explanation and drill to this participle. Explain and compare such expressions as :

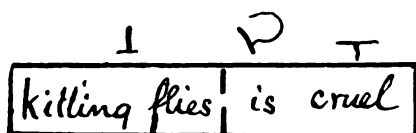
a crying doll	a painted doll
a breathing image	a graven image
a running horse	a clipped horse
a swinging gate	a broken gate
a skating pond	a frozen pond

You will also have to explain that there is enough of

the verb left in these verb-nouns to take an object after them. I should teach such expressions as a whole, give the diagrams, and trust to practice.

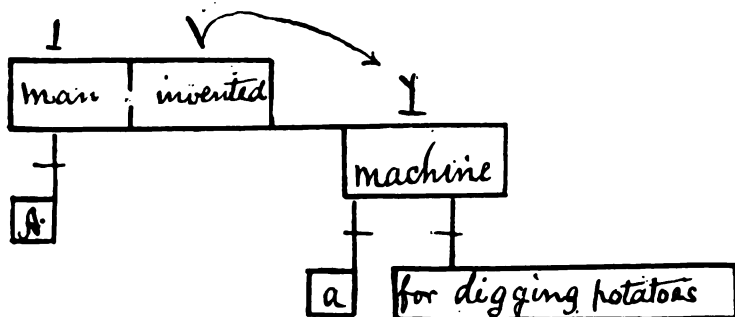
Killing flies is cruel.

Killing people is very wicked.



A man invented a machine for digging potatoes.

A man built an engine for pumping water.



Miss Sweet gives many diagrams on these forms, each of which you should take as a pattern for many.

Lesson III.

We have already taught the superlative degree, and I hope our pupils have been using it, more or less, for some time past. Go over this lesson rapidly as a review exercise, asking such questions as: "Who is the tallest boy in the room?" etc. Give considerable attention to the irregular comparisons and to the form with "more" and "most."

Pictures will be a great help to you in these exercises. You will be wise if you have accumulated a large number

of these from which you can select, and you will be fortunate if you have enough to give each pupil one to paste into his scrap-book, with his language exercise on it. Ask every question beginning with "which" that you can think of.

Your pupils will, for a while at least, use the superlative where the rules of grammar require the comparative. But the language used by those around them is not always perfect in this respect, and you should not be discouraged if they do say: "I saw two boys fighting. The smallest one was the strongest," or ask: "Which is farthest from Flint, Saginaw or Lansing?"

Lesson IV.

This lesson brings us to the clause used as an adverbial modifier of cause. I should take no trouble to explain the difference between a clause and a phrase. I should not, with such a young class, even point it out, except as shown in the diagrams which you must give from time to time. Try and find some incident with which to start this work. If nothing happens that you can use, and you cannot manage to have one happen, ask questions about anything that has happened in the past: "Why did we have a holiday on February 22d?" Give the answer yourself: "We had a holiday because February 22d was Washington's birthday."

"Why was Henry sick last week?"

"Henry was sick last week because he ate too many green apples."

"Why does your father send you to school?"

"My father sends me to school because he wishes me to learn."

"Why does not Mary know her lesson?"

"Mary does not know her lesson, because she did not study."

"Why did not you tell me about ——?"

"I did not tell you, because I forgot."

The diagrams for these sentences must, of course, be shown. They will be found sufficiently illustrated in the book.

After some practice in answering these questions in full, tell them that people do not usually say so much in answering a question, but only the part that begins with "because," and give them that part of the diagram for answers to questions beginning with "why."

You may mention the fact that children are apt to answer a question with the single word "because" when they do not know what to say. This is always a puzzle to a deaf child when he meets it for the first time.

You will remember that, in your practice on adverbs of degree, there were many opportunities for the use of "because." Review that lesson now, and use "because" with it.* Teach the use of "for" meaning "because."

Lesson V.

In teaching the indirect quotation, begin by reviewing the direct, as taught in the last lesson of Miss Sweet's No. 2. After you have spent some time on this, and have several sentences on the slate, tell them that there is another way of saying all these things, and show the changes made in passing from one form to the other, having both sentences on the slate and giving both diagrams. Show them that such sentences as "Mary said: 'I was sick,'" and "Mary said that I was sick," mean different things. Practice in changing from one form to the other, and be sure you have the change made both ways. Have a pupil spell a short assertion to the class, as: "I like apples," and make them write both forms, as Miss Sweet shows. Write a statement, as: "The paper says that it will be

* Lesson V, No. 2.

very cold before to-morrow morning," and have them give the other form. Go back to former exercises, stories, etc., and have every direct quotation changed to the indirect. Explain that both are right, one as much as the other, but that they must know both.

Give some illustrations omitting "that." Without going too extensively into the question of "the sequence of tenses," it may be well to give some practice with the verbs "says" and "tells" in the present tense instead of the past. "Mr. A. says that he is well," but "Mr. A. said that he was well." The idiom of the English language requires that, when clauses are connected by "that," expressed or understood, if the first verb is in a past tense, the verbs in the other clauses must be also. Do not, however, allow your pupils to suppose that any such rule applies to the case where the first verb is in the present tense, or to think that only a present tense can follow a present tense, for we may use any tense, according to the meaning.

Lesson VI.

I once thought that the free and proper use of the relative pronouns could not be taught to congenitally deaf children, except in very rare cases. I still think that without a constant and intelligent use of diagrams it is almost impossible to give such a clear and distinct understanding of this difficult form of language to them as to enable them to understand their use. A pupil will write, "Washington, who was the father of his country," and insist that it is a perfect sentence, conveying a clear and distinct idea, and having both a subject and a predicate. He may consent to change it, in deference to your wishes, but he will not understand why, and will only gather a vague idea that "who" is a word that is very apt to make trouble when introduced into otherwise perfect language. Instead of trying to use relatives to express his own ideas,

particular thing, the only one of the kind, and that therefore it must be used with the definite article. If two or more horses run away, and one of them kills himself, we can say: "A horse, which ran away, killed himself," but if only one horse runs away, we must say, "The horse," etc. Also make it plain that, in such cases as those given, either of the two sentences can be made into the relative clause, but the same noun must always be the subject of the principal verb. From the examples given you can make:

The knife, which has a black handle, is mine.

The knife, which is mine, has a black handle.

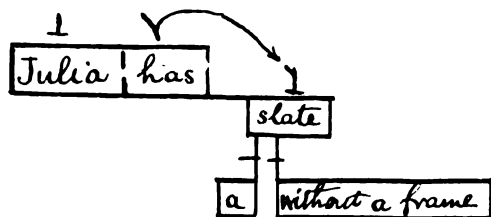
etc.

etc.

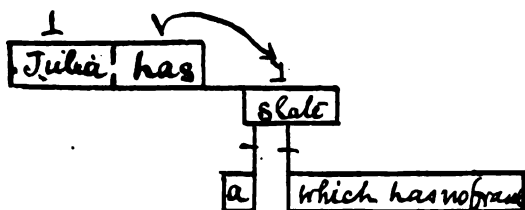
etc.

Explain that very often the ideas which they have expressed by independent sentences can be more clearly expressed by changing one or more of them to relative clauses. Take some of the old exercises, stories, etc., which they have preserved in their scrap-books, and whenever the language can be improved by the use of relatives, give that form. Be sure that the pupils fully understand these changes, and frequently ask them to make them themselves.

Go back to Lesson VI in No. 2, and have your pupils substitute relative clauses for the phrases used in that lesson. Use diagrams freely:



or



Aim, in all these exercises, to make it very clear that the relative clause is only an adjective modifier of a noun, but that it must always be a complete sentence itself.

It will require much practice to get your pupils to use relatives themselves, but it will not be hard, nor take very long, to make them understand those they meet. Trained in this way, as soon as they see one they will look for the antecedent and know that the whole sentence following the relative modifies that word.

Do not teach that the relative is the same as a conjunction and a personal pronoun. If you do, you will sooner or later have trouble from your pupils trying to make that substitution in places where it cannot be done. Follow Miss Sweet's directions carefully. What I have said here, as elsewhere, is not intended to take the place of these, but to amplify and explain them.

Some time, during this year, you must begin to explain contracted forms of writing to your pupils. People seem to think that a child, and especially one to whom they have to write, finds it much easier to understand "don't," "I'll," "can't," etc., than the full forms "do not," etc.

Whenever you or your children meet one of these contractions, explain it by writing it out in full. Then write it on a piece of card-board and hang it on the wall. Keep on till you have all of them, even if you are a year or two in getting them all. It will renew their interest and serve as a review every time you put a new one on the chart.

Do not insist on your pupils using exactly the form of

language you may have in your mind. If they express themselves clearly and in correct English, be satisfied. Leave the elegancies of language and its nice distinctions to those teachers who will teach your children some years hence.

FRANCIS DEVEREUX CLARKE,
Superintendent of the Michigan School, Flint, Michigan.

[TO BE CONTINUED.]

THE EDUCATION OF THE WILL.

“SUNDAY, Jan. 25, 1818.

“Oh! Almighty God, in thy wise providence thou hast placed me in my present situation. Thou seest my heart. Thou knowest my desire is to be devoted to thy service, and to be the instrument of training up the deaf and dumb for heaven. Oh! show me clearly the path of duty, and teach me submission to thy holy will—more self-denial and humility—more patience and perseverance.” From the Diary of THOMAS HOPKINS GALLAUDET, Founder of Deaf-Mute Instruction in America.

It is nearly fourscore years since those words were penned in secret by an overburdened, saintly, great-souled man. From the seed he sowed has sprung a goodly harvest, in which, one is glad to hope, his spirit may to-day rejoice. Compared with all our modern educational paraphernalia, that little band of Puritan teachers in our parent school at Hartford had almost nothing with which to work. The abacus, the language chart, physical culture, the kindergarten and a hundred other aids dear to us were to them unknown. One thing they had, however, which gave dignity and meaning and sacredness to all their work—namely, a strong unwavering faith that, in the case of every child confided to his charge, the teacher was laying, for weal or for woe, the foundations of an eternal life. From sunrise to sunset, from one year's end to another, this sense of personal responsibility for the child's *soul* was a controlling and abiding force. Is it not true that to our consciousness, in this age of the bacillus, the steam en-

gine, the electric motor, and the Röntgen rays, this force has become a less vital, more uncertain thing?

"Fit a child for this world and you have fitted him for the next" is in these days, everywhere, a popular but dangerous cry. Dangerous, because, like most popular cries, it contains a large element of truth. Everything depends, of course, upon what we mean by the terms "this world" and "the next." It is the vaunted nineteenth century, to be sure, but we are only just beginning to find out, after all, that heaven and hell are conditions, not places; that every man, *by the exercise of his own will*, creates his own world both here and hereafter, and that all education which does not make a man feel this is worthless and unmeaning. As the swift years pass and our ranks are thinned by death—when men like Mr. Storrs and Mr. Jenkins and women like Miss Ellen Barton go, leaving our profession and the whole world poorer for their loss—we realize more and more that character is all. The successful carrying out of the intellectual curriculum of any school is a very minor thing. One task alone is and should be ours—"the training of the deaf and dumb for heaven." Or, in more modern phraseology, it is the task of rousing every young person with whom we come in contact to a living, burning consciousness of the worth, the dignity, the glorious possibilities of his own personality. When, by proper education of the will, we have taught a child to know well, to love well, and to choose well, we have taught him all he needs to know. Henceforth he becomes a "man and master of his fate."

The exercises here outlined as suggestions for systematic will-training are not new. They are, most of them, the old, hackneyed exercises of every school-room. It is the intelligent direction of the workman, not a new set of tools for each article he makes, that secures a desired result. If, in the teacher's consciousness, one aim is clearly dominant, all things in the daily routine of school work will speedily become contributory and subordinate

to that aim. We need to work on larger thought lines. Doing that, the details of our daily work may seem to run in the same old grooves, but the end we seek will no longer be the successful passing of an examination—the promotion of John and Susan from one class to another—a diploma tied with blue ribbon, or a good business position after graduation. It will not, in fact, be an *end* at all. It will only be a vision—the vision of an infinite progress by an eternal spirit in whose development we were, for a little space, privileged to bear a part.

Although marked in some quarters by a sentimentality almost approaching imbecility, the present raging fad of “Child Study” is a most hopeful sign. A comprehensive and thorough course of reading in psychology must form a necessary preliminary to any effective work in will-training.

But just here a word of warning. Unless one wishes his own mind to become permanently weakened, he should avoid, as he would avoid the plague, all those works upon the subject which have been especially prepared and written down for the use of teachers. They are, for the most part, made up of “inspiration and water,” which, says Mr. James Russell Lowell, nobody likes. For once, though, it would seem as if Mr. Lowell were mistaken. The number and popularity of such books indicate very plainly that many people do like inspiration and water—that they prefer it, in fact, to either beverage taken straight.

For psychology proper, Dr. William James's work (*American Science Series*) is, by all odds, the very best book for our purpose—strong, helpful, clear in its psychology, sound in its ethics, and delightfully, charmingly, written. The following books were found helpful by a group of teachers who spent a part of their summer in special reading connected with their profession :

Sully's *Psychology* ; Bain's chapters on *Habit*, *Pain*, *Pleasure*, and his little book on the *Emotions* ; *Passages*

from Aristotle (Wallace's Translation). The oft repeated declaration of Aristotle that education is and must be a process of pain comes as a refreshing antidote to the sentimental twaddle with which the pedagogic world is just now deluged. "The Education of the Greek People," by Thomas Davidson (International Educational Series), Essays by Dr. Wm. T. Harris, particularly those relating to the Will, and his "The Old Education and the New." Fichte's "Vocation of the Scholar," than which, probably, no more inspiring essay was ever written. To it and to his "Way of a Blessed Life" may be traced much of Carlyle's thought and several of Tennyson's best known poems. In addition may be mentioned a series of lectures upon psychology which, there is reason to hope, may soon be given to the world in book form by Dr. John Dewey, head of the Department of Philosophy of Chicago University. Just here may be mentioned also the Primary School established by Chicago University—an experiment which should interest every teacher in the United States. A circular giving an outline of this school and its novel methods will, I think, be furnished upon application. One deaf child—a semi-mute with some hearing—is already numbered among the pupils of this unique school.

A plan for work in the direction of will-training cannot, like one in language, be laid out for definite periods, since, beginning at the very lowest point of physical volition, such training should be systematically carried on to the end of the child's school course. For convenience, however, we may, like the geographers, use imaginary lines, roughly dividing our work into three classes—lower, middle, and higher.

Logically, of course, work in sense-perception comes first. But with that, except in a few elementary lessons on touch or special cases of abnormal children, we shall have nothing to do. The majority of our little ones usually have sense-perception already developed to an embarrassing degree by the time they enter school.

The matter of attention is the first problem demanding our consideration. In fact, reduced to its lowest terms, will is attention—nothing more.

The position of the school-room furniture at this stage is of the greatest importance. Nothing could be worse than the circular arrangement of desks seen in many school-rooms. The children's desks should always face that of the teacher, and the teacher, no matter what is going on, should invariably be the centre of every performance. This matter of a central point upon which the attention must be riveted for short periods at a time is cardinal. Its importance is too often overlooked.

During a lesson period the attention of the children should not be allowed to wander for one instant from the teacher and the subject presented. To gain this attention in the first instance before right habits are formed is very difficult. As to just how it should first be secured, authorities differ.

"Select," says one very popular class of educators, "for all primary instruction subjects so intensely pleasurable and absorbing that the little ones will follow you with wondering, breathless delight."

Now, we all know that certain elementary steps in education are not, and cannot be, made "intensely pleasurable and absorbing." They are, from their very nature, hard and disagreeable—almost as hard and disagreeable as many of the things which these same children will in later life be called upon to meet and conquer. Also we know that, in every class, there are sure to be one or two morbidly self-conscious, mischievous children who, if a live elephant were to be introduced bodily into the class-room as an object-lesson, would, after a cursory glance at the animal, immediately begin again to exploit themselves and disturb their companions. "Such conduct," our sentimentalist authority would say, "only shows that the little people are weary of the subject and want a change. Something new and more interesting

should be introduced at once." Just what, is not usually specified—a hippopotamus, very likely.

Continued throughout an entire school course, this popular and prevalent method of instruction simply ruins the will power. It results always in a type with which we are all, alas! only too familiar—the hysterical young woman and the effeminate young man who go through life from their selfish youth down into the shadows of an unlovely and unloved old age, seeking, ever seeking, in constant change of material diversion, for that "good time" which they never find. It is the type of shirks, not heroes.

"To secure at the outset the attention of young children," says a small minority of more old-fashioned educators, "have the subject-matter of your first lessons as novel, interesting, and attractive as may be. Have also upon your desk a small pointer or a light rattan. Use it instantly, if needed, to enforce attention. At the end of three days you will be able to lay it aside for weeks and months—very likely forever."

I am well aware that the teacher who dares, in this age of child-rule, to advocate the use of even the limpest sort of switch is regarded with abhorrence, as one who seeks to re-establish the inquisition. But normal childhood is very like normal puppyhood—healthy, rollicking, mischievous—and we have no right to read into it—to hypnotize into it even—as we often do, the sentimental imaginings of our own exhausted nerves.

For very young, healthy, naughty children, as for other young animals, a short, smart whipping is the natural, most effective, and humane punishment. As a means of strengthening the attention and developing the power of inhibition it is, at times, invaluable.

One of the very best exercises for gaining the power of attention is the following: Furnish the children with clean slates and freshly pointed pencils. Let them suppose the lesson one in penmanship. Standing at the black-board,

crayon in hand, see to it, sharply, that every eye is directed toward yourself. Write very slowly and distinctly upon the black-board the first letter of a long word the meaning of which is unknown to the class. When you have finished, let them copy, beginning, all at the same time, from a motion of the pointer. Go through the word in this way, letter by letter. Take several words each day, explaining their meaning later. This simple exercise, given for fifteen minutes daily, will shortly reduce the most rebellious class to order. And the best thing about it is that the children never once suspect the fact that they are being disciplined. Easy map and picture drawing used in this manner accomplishes the same result.

Memorizing is a most important factor in strengthening the attention. A short lesson upon the black-board should be memorized under the eye of the teacher. The story and reproduction from spelling is invaluable. When there are two or more divisions in a class, it is well to require all to unite in paying attention while the teacher spells, even though one division alone may be able to reproduce the ideas in writing.

Five minutes a day, at least, should be given to calisthenics. Control of the bodily organs is the first step towards control of the more intangible, refractory self. For this reason, too, certain attitudes should be assumed, and others forbidden, during a recitation.

In the first years of school life there should be a great deal of play, but not too many playthings. Nothing distracts and weakens a child's attention more than a great variety of toys with whose invention he himself has had nothing to do. Games should be selected always with reference to two points—doing and choosing. The child must *do* something, and that doing must involve choice on his part.

It will be observed that, in this lower stage, nearly everything is done under the direction of an external will,

and this brings us to a most important point in all will-training—obedience.

There is a profound psychological truth underlying the old saw that only he who has learned to obey is fit to command. We are apt to think of will always as affirmative—the doing of something. In reality it is inhibition, the not doing something which our lower nature urges us to do, that makes the heroism and the tragedy of life. Age after age, goes up the old despairing cry, “The thing that I would not, that I do.” Self-control comes only through obedience to law, and, at first, the law must be external. The child’s *wilfulness* must be repressed in order that his *will* by inhibition may grow strong and sane. Prompt, unquestioning obedience should be required at every point throughout this lower stage. Questions, explanations, and the presentation of higher motives belong to a higher order of development. Law, nevertheless, with penalties for its infringement, must continue throughout, but with this difference: that, in the higher stage, instead of being external, the severest penalty will lie in the humbling, scorching thought, “And I, *I* could commit this sin!” To a man whose will has been trained aright there is no other hell so terrible as this.

The second stage—let us say from the ages of ten to fifteen years—is, in some respects, the most important and interesting period with which we shall have to deal. It is a period of growth. The intellect awakens and the emotions begin to assert themselves. The former must be fed, the latter sanely and wisely directed. Hero-worship is sure to come in now, often as a baffling and perplexing element. Imitation is active, and habits, both good and bad, are formed with appalling rapidity. The rein of external authority should now be loosened. The child must be encouraged to reflect, to seek remote ends, and, so far as possible, to judge for himself their intrinsic and relative value. Our main task in this stage will be to transfer largely that power of attention which we have

been at such pains to cultivate, from the outward to the inward realm. This power of inward attention to right thinking, feeling, and choosing we call effort. Dr. James says of it: "Effort of attention is the essential phenomenon of the will." And, again: "Of course we measure ourselves by many standards. Our strength and our intelligence, our wealth, and even our good-luck, are things which warm our heart and make us feel ourselves a match for life. But deeper than all such things, and able to suffice unto itself without them, is the sense of the amount of effort we can put forth. Those are, after all, but effects, products and reflections of the outer world within. But the effort seems to belong to an altogether different realm, as if it were the substantive thing which we *are*, and those were but the externals which we *carry*. If the 'searching of our heart and reins' be the purpose of this human drama, then what is sought seems to be what effort we can make. He who can make none is but a shadow; he who can make much is a hero."

We may, for work at this stage, speak briefly of three forms of effort—physical, intellectual, and moral effort.

Of course, only the barest suggestions can be offered, since concrete work in this direction can never be the same in any two schools, nor, for that matter, in the case of any two children. It is an excellent plan for a teacher to make out and preserve in a note-book a character-sketch of each pupil, noting temperament, family antecedents so far as known, prevailing characteristics, marked preferences, dislikes, chief faults, virtues, etc., etc. To those of us who know and love our Dickens, and label half our acquaintances with the names of his characters, this proceeding will seem ludicrously suggestive of Miss Cornelia Blimber and her "Analasys of the charachter of P. Dombey." But, given a little more insight and sympathy than was possessed by that energetic educator, it is, all the same, a very good thing to do.

"Never encourage helplessness" is an axiom which we may safely apply in the case of every child. More than that, we should teach them that weakness—even physical weakness, when the remedy lies in their own hands—is sin.

Institution children—too much tagged by nurses and governors at every step—are prone to lie back, lazily awaiting directions. "You didn't tell me to" is an excuse with which we are all familiar, and one which, unfortunately, many of us accept with such meekness that the child actually feels himself injured by not having been told to perform some very obvious duty. Punishment, not pardon, should be meted out in such a case. All children over twelve years of age should be held as strictly accountable for the things they know they ought to do as for acts expressly commanded. Nothing strengthens the will power and develops common-sense judgment like self-responsibility felt and practised at an early age. Proper care of their own or of school property, neatness in personal appearance, the acknowledgment in writing of all presents, invitations, or favors received—in short, everything which can in any way strengthen the sense of personal responsibility—should be rigidly insisted upon.

In the domain of physical effort we may make use of the hundred daily opportunities, seeing to it that all school-room service—brushing slates, turning on and off of radiators, sharpening pencils, opening windows, etc.—is performed by the pupils, not the teacher. Athletic sports should be encouraged for girls as well as boys. Nothing is more melancholy than to see institution girls walking demurely, two by two, through city streets or along paved walks, for exercise, when they ought to be climbing trees, jumping fences, or making mud-pies.

Fighting, when not too freely indulged in, is an excellent thing for boys, and, occasionally, for girls. "Fight your own battles" is frequently the very best advice we can give to the child who comes to us whining for redress and sympathy. As a rule, we take too much notice of

children's quarrels, especially of silly little disputes between girls. We insist too much on sentimental "making up," shaking hands, and begging pardon.

For intellectual effort our ordinary school programme offers ample scope, and we need not dwell upon it here. One word only in regard to praise as an incentive to effort. There is a current notion that commendation should be sparingly used. On the contrary, it should be invariably bestowed upon every well-meant effort.

Something worthy of praise may be found in the work of the most sluggish, loutish boy. If not, we may, legitimately, pretend to find something, and praise in his case the rudiment of effort. It is often pathetic to watch the slow, incredulous, brightening face of such a boy when, for the first time, instead of being chided or held up to public scorn, he finds himself actually commended. A prize is harmful, but prizes, one within the reach of every child, are valuable as incentives to effort. Lists of names written each day at the close of school, upon the black-board, under the headings "Good Lessons" and "Good Behaviour," are also helpful. These things seem trifling, perhaps, but we must remember that we are dealing with children, and children, like grown people, are often spurred to effort by trifles.

When we come to the domain of moral effort, we find our second stage so merging itself into the third that, henceforth, we may as well consider both together. This latest period of school life is, emphatically, the "I like it" and "I don't like it" age. To make our boys and girls "*like*" worthy things and *do* worthy things, whether they like to do them or not, should here be our constant aim.

The repression of violent outward show of emotion is at this time a frequent duty, especially in the case of nervous, sensitive girls. According to Dr. James, we do not cry because we are sorry, but we are sorry because we

cry, and the theory, in hysterical cases at least, seems to be correct.

It is really through the emotions that moral effort is stimulated.

At this point two ways are open to us. We may—for nothing on earth is easier to do, and thousands of teachers and Sunday-school teachers all over the world are doing it to-day—we may so feed and stimulate sentimentality that the child shall become priggish and self-conceited, his moral horizon being bounded by the narrow environment of school and family.

Or, on the other hand, calling to our aid those two great educators of the soul, history and poetry, we may help these eager, generous young people to know the universe they live in; may show them—or try to show them, as best we may—how to live in accordance with its being.

Not many concrete exercises can here be given. We may speak briefly, however, of the necessity in geography of giving a national background. Word pictures of foreign countries given in the form of language lessons are invaluable as a preparation for the later study of history. And by the study of history is meant, not the history of Greece, the history of Rome, of Germany, of England, of America, each considered apart from the other. No; the true study of history means—or it means nothing—the unrolling of the great world drama in its completeness. It means bringing forth upon the stage, alive and quickening, the mighty spirits of those noble men and women who, by the path of martyrdom, have made possible the progress of mankind. It means making these boys and girls so conscious of their heritage and of the great world current throbbing in their veins that they cannot help crying out exultantly, "We have entered into our own. We, too, are ready to fight, to suffer, to die, if need be, for the right!"

As a school of ethics there is nothing like history, prop-

erly taught. But history without poetry is dead. Both these subjects have, however, been fully treated in the *Annals*, and it would be presumption to reproduce here the arguments already so ably, so delightfully, presented by Miss Fletcher.*

Of course, the great danger with young people is that emotion may evaporate without passing into action. Dr. James says: "One should never have an emotion without expressing it afterward in *some* active way. Let the expression be the least thing in the world—speaking genially to one's grandmother, or giving up one's seat in a horse-car if nothing more heroic offers—but let it not fail to take place."

The power of habit as a factor in will-training cannot be overestimated. Upon this point the last word, perhaps, has been said in that wonderful chapter on Habit in Dr. James's *Psychology*. Of it one teacher writes: "If I were a high-school principal, a college president, or any other in authority, I would have that chapter on Habit read publicly from the platform at least once every month throughout the school year." And there are many who echo her sentiment.

Of the personal influence of the teacher during this most critical period, but little can be said. That is a matter which each must settle with his own conscience. The same thing is true of what may be especially termed religious instruction. The importance of each cannot be overestimated, nor the dangers. So great, indeed, are the perils and the responsibilities in these two directions that we may well end where we began, with that prayer of a good man—that old petition, uttered so long ago—for "more self-denial and humility, more patience and perseverance" in the work we are privileged to do.

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* See the *Annals*, vol. xxxvi, pp. 173-178, and vol. xxxvii, pp. 177-182.

AN INQUIRY CONCERNING THE RESULTS OF MARRIAGES OF THE DEAF IN AMERICA.*

CHAPTER VI.

Happiness.

THE fourth and last question proposed for consideration in the present Inquiry is this : Aside from the question of the liability of the offspring to deafness, are marriages in which both of the partners are deaf more likely to result happily than marriages in which one of the partners is deaf and the other is a hearing person ?

When Dr. Bell testified before the "Royal Commission on the Blind, the Deaf and Dumb,"† etc., in London a few years ago, in reply to a similar question, he said : "The opinions of the principals [of American Schools for the Deaf] seem to be that they are happier when both are deaf-mutes. But I know of no data myself from which we can form conclusions."

The opinion to which Dr. Bell refers has been forcibly expressed by Dr. Gillett, who has a personal acquaintance with more than two thousand deaf people, many of whom are married : "I believe," he says, "that, as a general rule, their intermarriage is more congenial, and productive of more happiness, than the marriage of deaf with hearing persons, though I have known most beautiful and happy unions of the latter kind. 'Be ye not unequally yoked together' is a Scripture injunction that bears with as much force upon the deaf as upon any others."‡ This opinion is also held by the majority of the deaf themselves.

* Continued from the November number of the *Annals*, page 402.

† A. G. BELL, in "Appendix to the Report of the Royal Commission on the Blind, the Deaf and Dumb," etc., London, 1889, Answer to Question No. 21,557, Vol. III, p. 825. Reprinted in "Education of Deaf Children," Washington, 1892, Part II, p. 24.

‡ P. G. GILLETT, "Deaf-Mutes," in "Science," New York, 1890, vol. xvi, No. 404, p. 248.

On the other hand, President Gallaudet, whose acquaintance with the deaf is also wide and intimate, in referring to Dr. Gillett's opinion above quoted, says : " Many deaf-mutes think more happiness is to be found in a marriage with a deaf person than with one who hears ; but this is by no means as certain as Dr. Gillett, or the deaf themselves, suppose, for it involves a question that has not yet been settled, and never may be. I have known some intermarriages of the deaf to result in wretched unhappiness, but I do not for that reason conclude that such marriages must always, or even often, be unhappy. It is undoubtedly true that some marriages of deaf people with those who hear have turned out badly, but Dr. Gillett's admission that he has known ' most beautiful and happy unions of this kind ' is a sufficient answer to all objection to such unions ; and to his admission I may be permitted to add the testimony from experience, of both a son and a brother, that marriage between the deaf and the hearing may be entirely happy and essentially successful."* And Dr. Bell, addressing the students of Gallaudet College on the subject of Marriage, says : " Do not let any one place in your minds the idea that such a marriage [with a hearing person] cannot be a happy one. The chances are infinitely in your favor that out of the millions of hearing persons in this country you may be able to find one with whom you may be happy than that you should find one among the smaller numbers of the deaf."†

As President Gallaudet says, the question is one that has not yet been settled. It cannot be settled by such individual testimony and opinion as have hitherto constituted the only attempts in this direction. All of us who

* E. M. GALLAUDET, "The Intermarriage of the Deaf," in "Science," New York, 1890, vol. xvi, No. 408, p. 296.

† A. G. BELL, "Marriage. An Address to the Deaf," Washington, 1891, p. 12.

are familiar with the deaf] can recall many happy marriages, and some unhappy marriages, of each of the two classes, just as we can recall many happy marriages and some unhappy ones among hearing people. Our opinions as to whether the proportion is greater or less in one class than in the other are apt to be influenced by our personal acquaintance, and our personal acquaintance is generally too limited to render our opinions conclusive.

In the original plan of the present Inquiry no provision was made for obtaining information concerning the happiness or unhappiness of marriages of the deaf, for this did not seem to be a subject to which statistics were applicable. But after the returns began to come in, noticing that on the page devoted to "Remarks" divorces and separations were sometimes recorded, it occurred to me that these might afford a basis for a comparison of the unhappiness of the two classes of marriage and, *per contra*, of their happiness. Statistics of divorce and separation, it is true, do not indicate the entire amount of unhappiness in marriage. "They simply determine the number of cases in which the marital infelicity is so burdensome that the parties are willing to bear publicity of their most intimate relations rather than longer endure the burdens of unhappy conditions."* But they indicate the amount of unhappiness in the one class of marriages of the deaf as fully as in the other, and so enable us to determine the relative proportion of unhappiness in the two classes. I have therefore taken note of all cases of divorce or separation reported in the marriage records, and have added all others of which I have been able to obtain trustworthy information from newspaper publications and personal correspondence. In the following tables the marriages are classified according to whether both of the partners

* C. D. WRIGHT, "A Report on Marriage and Divorce in the United States, 1867 to 1886: including an Appendix relating to Marriage and Divorce in certain countries in Europe," Washington, 1891, p. 163.

in marriage were deaf, or one of them was deaf and the other a hearing person. In the first table the number and percentage of divorces in each class are shown :

TABLE LXXXIX.

Marriages of the deaf.	Number of marriages.	DIVORCES.	
		Number.	Percent'e.
Both partners deaf.....	3,242	33	1.018
One partner deaf : the other hearing..	894	25	2.796
One partner deaf : the other unreported whether deaf or hearing.....	335	7	2.090
	4,471	65	1.454

The following table shows the number and percentage of separations in each class :

TABLE XC.

Marriages of the deaf.	Number of marriages.	SEPARATIONS.	
		Number.	Percent'e.
Both partners deaf.....	3,242	51	1.573
One partner deaf : the other hearing...	894	33	3.691
One partner deaf : the other unreported whether deaf or hearing.....	335	7	2.090
	4,471	91	2.035

Combining Tables LXXXIX and XC, we have :

TABLE XCI.

Marriages of the deaf.	Number of marriages.	DIVORCES AND SEPARATIONS.	
		Number.	Percent'e.
Both partners deaf.....	3,242	84	2.591
One partner deaf : the other hearing...	894	58	6.488
One partner deaf : the other unreported whether deaf or hearing.....	335	14	4.179
	4,471	156	3.489

It appears from Tables LXXXIX, XC, and XCI that the percentage of divorces and separations is far less in marriages in which both of the partners were deaf than in marriages in which one of the partners was deaf and the other a hearing person. We conclude that in marriages of the former class, as a rule, and other things being equal, the probability of happiness is greater than in those of the latter class. The fourth question of our Inquiry, then, must be answered in the affirmative: Marriages in which both of the partners are deaf are more likely to result happily than those in which one of the partners is deaf and the other a hearing person.

There are three obvious reasons why this should be so. 1. Where both husband and wife are deaf they are united by the strong bond of mutual fellowship and sympathy growing out of their similar condition, which has already been mentioned as the principal reason why the deaf generally prefer to marry one another rather than hearing persons.* 2. They are able to communicate with each other with perfect ease and freedom. 3. The most intimate social relations and sympathies of both, outside the domestic circle, are with the same class of persons. In marriages in which one of the partners is deaf and the other a hearing person, the first of these ties is always lacking, and the second and third are often lacking to a greater or less extent. Even under these less favorable conditions the mutual love of husband and wife may be, and often is, strong enough to render the union a very happy one; but, other things being equal, the greater probability of happiness for marriages in which both of the partners are deaf, indicated by the above statistics of divorce and separation, seems to be indicated also by the nature of the case.

E. A. F.

[TO BE CONTINUED.]

*See Chapter II, pages 171-177.

“METHODS OF MIND TRAINING.”

THE secret of success lies in concentration. An illustration which I once heard a minister give in the course of his sermon should be ever present in the mind of the teacher: If you were attacked by a giant and were to hurl at him a handful of sand, it would simply fly ineffectively into the air. But if the sand were concentrated into a solid rock of quartz and your aim were good, you might crush the giant's skull.

How often do we see our pupils throwing the sands of time at the giants of the school-room. No doubt, some of it blows into the eyes of educators and makes them blind to the ineffectual waste of time and energy. Would it not be wise, at the beginning of a child's career in getting an education, to train him to do execution with rocks of respectable size instead of aimlessly casting sand at the course of educational giants? When we know that this power of attention is the foundation of all success, be it in study or in the business of life, and when we know that the first years of the child's life are of most importance in the formation of habits, is it not a subject that deserves more attention, especially from those in charge of primary classes?

I have long desired to write an article upon the subject of concentration. For several years, everything bearing upon this important point that has caught my eye I have endeavored to make my own, and every experience of value I have endeavored to retain. But recently a little book came into my possession which I shall make the basis of this article. “Methods of Mind Training,” by Miss Catharine Aiken, should be in the hands of every primary teacher, and its principles practised in every school.

In the introduction to her work Miss Aiken tells of the

causes which led her to adopt the new methods. The fact was constantly forced upon her that, with all the years spent in study under learned and zealous instructors, the results were comparatively worthless in preparing the pupils for the warfare of life. They had stored up much knowledge, but had acquired no real mental power. It was while searching for a better way of reaching the child mind and developing its power that her attention was drawn to some little Japanese boys who were executing acrobatic feats under extremely dangerous conditions. She reasoned that fear caused them to rivet their attention upon the task before them so completely as to shut out all other impressions. Concentrated attention enabled the Japanese boys to perform the dangerous feats without mistake. Concentrated attention should be the new force introduced into school work. The incentive "fear" in the case of the acrobat must be replaced by some other influence in the case of the child in school, and the incentives found to be most powerful with the child were innate curiosity, ambition, and desire to excel.

In closing the chapter Miss Aiken gives an account of the surprise manifested by visitors to her school. After witnessing her exercises for training the minds of her pupils, they suggested magnetism, hypnotism, and other mysterious agents as the means by which the marvellous results were obtained, but Miss Aiken explains it in the following words: "It is a wholly natural interaction that the pupil's mind takes on—simply a form of mental action, the natural result of being led daily in the same direction and through the same mental experience."

The second chapter the author devotes to the object of the system, and places special emphasis on the value of concentrated attention in the business of life, in gaining knowledge, in school or out of school, and the importance to the scholar of acquiring this habit at an early age, a matter for which the teacher is responsible. The habit

of concentrating the attention once formed, the memory becomes retentive, and the mind holds its facts in constant readiness for use in matters of reasoning and judgment. And, while constantly building up mental power, the knowledge gained for the same expenditure of time and energy is much greater than under the old methods. The exercises were adopted for the purpose of awakening the faculties and holding the attention. The exercises given each day placed the mind in the same mental state, and as a result the habit of voluntary attention was formed. The author thus marks out her process of development: "First, to quicken the perceptive faculties; second, to cultivate the habit of accuracy in seeing and hearing; and, third, to discriminate by immediately observing similarities, differences, and relations, remembering always that attention was the underlying condition for the proper development of these functions of the mind."

The method consists in securing attention by appealing to curiosity and the desire to excel, and adding the enthusiasm which accompanies the movement of large numbers actuated by a single purpose for the attainment of a desired object. The exercises consist in presenting to the pupils something written on a black-board for a brief period, and then removing it from view. The pupils are required to take in at a single glance the matter thus presented and repeat it. The amount of matter was constantly increased until quite long columns of figures were mastered. The difficulty of the exercise was still further increased by requiring the pupils, while retaining the column of figures in the memory, to perform the operations of addition, multiplication, taking the square root, etc., on each number and the column of results to be repeated. These exercises were used for the sole purpose of arousing the attention, and, while there was no occasion for remembering them, it was found that, after some days had passed, these columns of figures were retained in their

order by the pupils ; and not only that, but in many cases the pupils had associated one or more historical events with the numbers presented. The exercises were varied by placing the figures in a horizontal line, and by placing marks of various kinds in different positions with respect to the figures, all to be taken in at a glance and repeated. The subject-matter for these exercises may take in an endless variety. Exercises in distinguishing the exact length of lines are given. In drawing, the habit of seeing quickly and accurately has been cultivated by presenting a model for a few moments' study, and then, after withdrawing it, requiring it to be sketched. The reproduction of language was required in the same way after a single reading. In regard to this exercise, the author says : "They feel that they have no time to gaze about them ; they are urged by the imperativeness of *the one reading*, and, their attention thus stimulated, they do the work, gain the experience of writing the lines perfectly, and, better still, form the habit of observing while reading—the true way, in my opinion, to learn to spell, to punctuate, and even to construct sentences." Pupils are especially urged, in their efforts to reproduce language, to grasp the subjects and predicates in their order, and around these to group the dependent words.

Miss Aiken's exercises for cultivating the art of listening have by long-continued practice produced remarkable results. A short exercise is given every day for the one object of developing the power of attention, the pupil being required to depend upon the once heard reading. At first only a few lines were given, but the amount was daily increased until the pupils could repeat thirty lines or more after hearing them read but once. Problems in arithmetic involving a number of mental operations were also once read to them, the pupils performing the operations mentally as the reading proceeded, and at the end of the reading the answers were given immediately.

In a chapter devoted to some wholesome advice to teachers, I find among the good suggestions the following: "Can you not afford, therefore, to set apart twenty minutes every morning, at the opening of school, when there shall be no attempt at learning, as such, only an effort to arouse and strengthen the mental faculties by daily exercise in the same direction, until the full use of them becomes a mental habit, which may be profitably applied in the acquiring of knowledge, whether that knowledge be of the mind's own activity or of things external to itself? * * * Can you not see how much time and labor is saved to the child who, with sharpened faculties, sits down to the task of preparing, for example, a lesson in spelling, the use of capitals, punctuation, etc., as well as to the student in his pursuit of the higher mathematics, who is enabled by his habits of alertness and concentration to seize quickly the conditions of the problems, to hold them steadily in his grasp, and by means of his well-trained memory to bring to the solution his previous experience in similar work?"

These exercises are not presented as the entire work of the school, but simply as a kind of gymnastics for the purpose of sharpening the mental activities and preparing them for effective work in all branches of study. The object is not to make mere memorizers, but the fact is recognized that the memory is the basis for all effective work with the other powers of the mind; that memory depends upon the degree of attention; and that strong efforts should be made to cultivate the memory so that it may be able to perform its proper functions. I have seen all these exercises practised at times during my school days, and I have used similar exercises in my own work, but the virtue of the exercises lies in the continuity of the application. The principle upon which they are based should be the ruling principle of the school, and should find its application, not only for twenty minutes each day, but in every part of the daily routine; not only in the

school-room, but in the chapel, the study-hall, and the workshop. I have seen the beneficial effect of exercises similar in principle, though not quite to the degree of strictness which Miss Aiken has advised, upon a class of beginners during the course of a year ; and I believe that if greater stress were laid upon the exercises, and they were continued during the whole course, the standard of scholarship would be materially raised. It does not seem to me that it is necessary, in our work, to go beyond the customary subject-matter of our school work for materials to be used in training exercises. The most important use of the principle should be in the reproduction of language. If these exercises in reproduction were begun early, and continued with the object of forming the habit of concentrated attention, and the exercises were constantly increased in difficulty, I believe results approaching those claimed by Miss Aiken for her pupils could be produced in our schools.

It seems to me that the fundamental principle should be to present nothing to the pupil which does not carry with it a responsibility for its retention. The chapel exercises should be well considered from this point of view. The custom of giving a lecture every morning to the whole school without regard to the ability of the pupils to comprehend, and requiring no account to be given by the pupils of the use they have made of the exercise, soon develops the habit of mind-wandering, so detrimental to effective work, in a large number of the pupils. An account should be rendered of every bit of subject-matter presented. An account should be rendered for every minute of time assigned to school work. In the study-hall, especially, the pupils are liable to neglect the application of these principles and form harmful habits. We may not desire to use all of the exercises outlined in the book, but I believe we ought to apply the principles on which the exercises are based to every part of the pupils' daily life in school.

GEO. H. PUTNAM,

Instructor in the Texas School, Austin, Texas.

40 *Schools for the Deaf in the United States, 1896-'97.*

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1896-'97.
A.—PUBLIC SCHOOLS (NOT INCLUDING DAY SCHOOLS) IN THE UNITED STATES.

Name.	Location.	Date of opening.	Chief Executive Officer.
1 American School for the Deaf	Hartford, Conn.	1817	Job Williams, M. A., L. H. D., Principal.
2 New York Institution for the Instruction of the Deaf and Dumb.	New York, N. Y. (a)	1818	E. H. Carter, M. A., do.
3 Pennsylvania Institution for the Deaf and Dumb.	Mt. Airy, Philadelphia, Pa.	1820	A. L. E. Crocker, M. A., LL. D., Sup't.
4 Kentucky Institute for Deaf-Mutes.	Danville, Ky.	1823	Augustus Rogers, M. A., Sup't.
5 Ohio Institution for the Education of the Deaf and Dumb.	Columbus, Ohio.	1829	J. W. Jones, M. A., do.
6 Virginia Institution for the Education of the Deaf and of the Blind.	Staunton, Va.	1829	William A. Bowles, Principal.
7 Indiana Institution for the Education of the Deaf and Dumb.	Indianapolis, Ind.	1844	Richard O. Johnson, Superintendent.
8 Tennessee Deaf and Dumb School.	Knoxville, Tenn.	1845	Thomas L. Moses, Principal.
9 North Carolina Institution for the Deaf and Dumb and the Blind.	Raleigh, N. C.	1845	John E. Ray, M. A., Principal.
10 Illinois Institution for the Education of the Deaf and Dumb.	Jacksonville, Ill.	1846	S. T. Walker, M. A., Superintendent.
11 Georgia School for the Deaf.	Cave Spring, Ga.	1846	Wesley O. Connor, Principal.
12 South Carolina Inst'n for the Education of the Deaf and the Blind.	Cedar Spring, S. C.	1846	Newton F. Walker, Superintendent.
13 Missouri School for the Deaf and Dumb.	Fulton, Callaway Co., Mo.	1851	Noble B. McKee, M. A., do.
14 Louisiana Institution for the Education of the Deaf and Dumb.	Baton Rouge, La.	1852	John W. Swiler, M. A., do.
15 Wisconsin School for the Deaf.	Delaunoy, Walworth Co., Wis.	1852	John W. Swiler, M. A., do.
16 Michigan School for the Deaf.	Flint, Mich.	1854	Francis D. Clarke, M. A., C.E., do.
17 Mississippi Institution for the Education of the Deaf and Dumb.	Jackson, Miss.	1854	J. R. Dobyns, M. A., do.
18 Iowa School for the Deaf.	Council Bluffs, Iowa.	1855	Henry W. Rother, Superintendent; G. L. Wyckoff, Principal.
19 Texas Deaf and Dumb Asylum.	Austin, Texas.	1857	A. T. Rose, Superintendent.
20 Columbia Institution for the Deaf and Dumb.	Kendall Green, Washington, D. C.	1857	E. M. Gallaudet, Ph. D., LL. D., Pres't.
A. Kendall School for the Deaf.	do.	1857	James Denison, M. A., Principal.
B. Gallaudet College.	do.	1864	E. M. Gallaudet, Ph. D., LL. D., Pres't.
21 Alabama Institute for the Deaf.	Talladega, Ala.	1868	Joseph H. Johnson, M. A., Principal.
22 California Institution for the Education of the Deaf and Dumb and the Blind.	Berkeley, Cal.	1860	Waring Wilkinson, M. A., LL. D., do.
23 Kansas School for the Deaf.	Osthe, Kansas.	1861	H. C. Hammond, M. A., Sup't.
24 Le Conte's St. Mary's Inst'n for the Improved Instruction of Deaf-Mutes.	Buffalo, N. Y. (25 Edward St.) (b)	1861	Sister Mary Anne Burke, Principal.
25 Minnesota School for the Deaf.	Ferhanit, Rice Co., Minn.	1863	Jas. N. Tate, M. A., Sup't.
26 Institution for the Improved Instruction of Deaf-Mutes.	New York, N. Y. (904-922 Lexington Av.)	1867	D. Greene, Principal.
27 Clarke School for the Deaf.	Northampton, Mass.	1867	Miss Caroline A. Yale, Principal.
28 Arkansas Deaf-Mute Institute.	Little Rock, Ark.	1868	Frank B. Yates, Principal.
29 Maryland School for the Deaf and Dumb.	Frederick City, Md.	1868	Chas. W. Ely, M. A., Principal.

30	Nebraska Institute for the Deaf and Dumb	Omaha, Neb.	1869	John A. Gillespie, M. A., Principal.
31	St. Joseph's Institute for the Improved Instruction of Deaf-Mutes	Fordham, N. Y. (c)	1869	Madam Celestine Schottmüller, Prw't.
32	West Virginia School for the Deaf and the Blind	Romney, Hampshire Co., W. Va.	1870	C. H. Hill, Principal.
33	Oregon School for Deaf-Mutes	Salmon, Oregon	1870	Rev. P. S. Knight, Ph. D., Sup't.
34	Maryland School for the Colored Blind and Deaf	Baltimore, Md. (649 W. Saratoga St.)	1872	F. D. Morrison, M. A., do.
35	Colorado School for the Deaf and the Blind	Colorado Springs, El Paso Co., Colo.	1874	F. D. Dudley, M. A., do.
36	Central New York Institution for Deaf-Mutes	Rome, Oneida Co., N. Y.	1876	Edward Beverly Nelson, M. A., Principal.
37	Western Pennsylvania Institution for Deaf-Mutes	Edgewood Park, Allegheny Co., Pa.	1876	William N. Burt, M. A., Principal.
38	Central New York Institution for the Instruction of the Deaf and Dumb	Rochester, N. Y. (945 N. St. Paul St.)	1876	Z. F. Westervelt, L. D., Sup't.
39	Portland School for the Deaf	Portland, Me. (79 Spring St.)	1876	Miss Elizabeth B. Taylor, Principal.
40	Rhode Island Institute for the Deaf	Providence, (d) R. I.	1876	Miss Laura DeL. Richards, Principal.
41	New England Institute for the Deaf	Beverly, Mass.	1879	Miss Nellie H. Sweet, do.
42	South Dakota School for Deaf-Mutes	Sioux Falls, Minnehaha Co., South Dak.	1880	James Simpson, Superintendent.
43	Pennsylvania Oral School for the Deaf	Scranton, Pa.	1883	Miss Mary B. G. Brown, Principal.
44	New Jersey School for Deaf-Mutes	Trenton, N. J.	1883	Weston Jenkins, M. A., Principal.
45	Utah Stat. School for the Deaf and Dumb	Ogden, Utah	1884	Frank W. Metcalf, B. D., Sup't.
46	Northern New York Institution for Deaf-Mutes	Malone, Franklin Co., N. Y.	1884	Edward C. Rider, Principal.
47	The Florida Institute for the Blind and Deaf and Dumb	St. Augustine, Fla.	1884	Henry N. Felkel, M. A., Principal.
48	New Mexico School for the Deaf and Dumb, and the Blind	Santa Fe, N. M.	1885	Lars M. Larson, B. A., Superintendent.
49	Washington School for Defective Youth	Vancouver, Wash.	1886	James Watson, Director.
50	Deaf, Dumb, and Blind Institute for Colored Youths	Austin, Tex.	1887	W. H. Holland, Superintendent.
51	School for the Deaf of North Dakota	Devils Lake, Ramsey Co., North Dak.	1887	Dwight F. Bangs, do.
52	Home for the Training in Speech of Deaf Children before they are of School Age	Philadelphia, Pa. (c)	1892	Miss Mary S. Garrett, Principal.
53	Montana Stat. School for the Deaf and the Blind	Boulder, Montana	1893	E. S. Tillinghast, M. A., Sup't.
54	North Carolina School for the Deaf and Dumb	Morganton, Burke Co., N. C.	1894	E. McKay Goodwin, L. I., Sup't.
55	Public Schools, not including Day Schools.			
34	Denominational, Private, and Day Schools.			
89	Schools in the United States.			

(a) West 163d Street and Grand Boulevard
 branch; one situated at Westchester, another at Fordham (772 East 188th Street), and another at Brooklyn (113 Buffalo Ave.).
 Street. (c) Belmont Ave., cor. Monument Ave.

(b) There is a branch school at the corner of Main Street and Forest Ave.
 (d) East Avenue, cor. Cypress

(See page 46)

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1896-'97—Continued.
PUBLIC SCHOOLS (NOT INCLUDING DAY SCHOOLS) IN THE UNITED STATES—Continued.

Name.	Methods of Instruction.	School-hours.	Industries Taught.*	NO. OF PUPILS.				PRESENT NOVEMBER 15, 1896.				PRESENT NUMBER OF INSTRUCTORS.†			
				Total.	Male.	Female.	Total.	A.†	B.†	C.†	Total.	Male.	Female.	Total.	Articulate.
				Within 1 h. year 1896.							Received instruction.				
1 American School.....	Combined.	9 to 12 and 2 to 4	Cab. Sh.	179	152	90	62	99	.....	.....	2,539	18	6	12	3
2 New York Institution.....	Combined.	8.30 to 11.30 and 1 to 4 (a)	Art. Bak. Cab. Car. Ch. Dr. Ga. Gl. Hor. Pa. Pr. Ta. Wc.	440	336	249	137	386	70	9	3,604	26	7	19	6
3 Pennsylvania.....do. { Oral Dep't. {	Oral.	8 to 1 and 2 to 4½	Bk. Car. Ch. Dr. Gl. Kn.	402	388	202	186	389	383	.....	2,700	43	7	36	1
4 Kentucky Institute.....	Manual do	8 to 12½	Pa. Pl. Pr. Sh. Sl. St. Ta.	170	123	71	52	40	.....	.....	20	10	4	6	3
5 Ohio Institution.....	Combined.	7½ to 9½, 9½ to 11½, 1½ to 2½, and 3 to 4 (b)	Car. Ga. Pr. Sec. Sh.	361	294	150	144	145	123	22	1,343	23	10	13	5
6 Virginia Institution.....	Manual.	8½ to 1½	Bo. Car. Dr. Pr. Sh. Ta.	484	415	215	200	192	103	12	2,757	31	9	22	7
7 Indiana Institution.....	Combined.	8½ to 1½	Car. Pr. Sh. Ta.	118	113	62	51	93	86	.....	730	10	8	2	6
8 Tennessee School.....	Combined.	8½ to 11½ and 1 to 3½	Bak. Cab. Car. Ch. Dr. Pa.	373	311	175	135	93	.....	.....	2,067	27	12	15	8
9 North Carolina Institution.....	Combined.	8½ to 11½ and 1 to 3½	Fl. Pa. Pr. Sec. Sh. Wc. Wt.	240	202	117	85	100	47	.....	899	11	5	6	3
10 Illinois Institution.....	Combined.	7½ to 10½, 10½ to 12½, 2 to 4½ (c)	Car. Pr. Sh.	76	70	39	31	13	.....	.....	.....	6	4	2	2
11 Georgia School.....	Combined.	8 to 1	Art. Bak. Cab. Car. Ch. Dr. Ga. Gl. Pa. Pr. Sec. Sh. Ta. Wc. Wt.	594	521	314	207	200	106	32	2,551	43	12	31	11
12 North Carolina Institution.....	Combined.	8 to 1	Car. Ga. Sh.	169	131	68	63	26	.....	.....	596	9	5	4	3
13 Missouri School.....	Combined.	8 to 1	Pa. Pr. Sec. Sh.	116	96	46	59	30	27	.....	358	9	3	6	3
14 Louisiana School.....	Combined.	8 to 12½ and 2 to 4½	Ba. Cab. Car. Ch. Dr. Ga. Pr. Sec. Sh. Ta. Wc. Wt.	309	336	189	147	24	24	.....	1,427	26	9	17	9
15 Wisconsin School.....	Combined.	8½ to 10½, 10½ to 12½, and 1½ to 2½ (b)	Car. Pr. Sh. Wc. Wt.	93	90	47	43	21	.....	.....	.....	7	3	4	3
16 Michigan School.....	Combined.	8 to 12½, 11 to 4½, 8 to 12½, and 1 to 3½ (c)	Bak. Cab. Ch. Dr. Pa. Pr. Sec. Sh. Ta. Wc. Wt.	221	184	103	81	87	87	.....	1,000	16	6	10	4
17 Mississippi Institution.....	Combined.	8½ to 11½ and 1 to 3 and Cab. Car. Dr. Pr. Sh. Ta.	459	407	208	199	157	86	.....	.....	1,416	30	7	23	7
18 Iowa School.....	Combined.	8½ to 1	Cab. Car. Pr.	122	102	53	49	28	19	.....	500	9	5	4	3
19 Texas Asylum (S).....	Combined.	8 to 11½ and 1 to 3	Bak. Br. Car. Ch. Dr. Pr. Sh. Ta.	346	301	163	103	66	33	2	.....	19	8	11	7
20 Columbia Inst. { Kendall School	Combined.	8 to 12½ and 1½ to 5½	Art. Bo. Car. Pr. Sh.	287	280	136	138	40	40	.....	666	17	8	9	4
21 Alabama Institute.....	Combined.	8½ to 12½ and 2 to 3	Cab. Pr.	67	44	23	21	39	.....	.....	421	8	4	4	3
22 California Institution.....	Combined.	8 to 12½ and 1½ to 3½	None.	119	94	53	41	73	.....	.....	483	19	14	5	6
23 Kansas Institution.....	Combined.	8 to 1	Bk. Cab. Pr. Sh.	145	126	66	70	30	.....	.....	300	10	6	4	3
24 Kansas Institution.....	Combined.	8 to 1	Pr. Wood-working.	187	167	101	66	110	.....	.....	493	16	9	7	3
25 Kansas Institution.....	Combined.	8½ to 10½, 10½ to 12½, and 1½ to 4½ (c)	Ba. Cab. Car. Ch. Dr. Pa. Pr. Sec. Sh. Ta. Wc. Wt.	281	239	110	129	71	20	.....	841	20	6	14	5

Schools for the Deaf in the United States, 1896-'97. 43

24 Le Conte, St. Mary's Inst.	Combined.	8 to 12 and 1 to 5.	Ch. Dr., Pr., Sh., Ta., Wc.	105	132	66	66	125	19	626	14	14	1 12
25 Minnesota School	Combined.	7½ to 10½, 10½ to 12½, and 2 to 4½ (d)	Ch., Car., Dr., Pr., Sh.	260	221	128	128	92	19	751	17	6	6 5
26 N. Y. Instit'n for Imp'd Ins'n	Oral	9 to 12 and 1 to 3½.	Use of tools.	220	187	101	86	187	187	688	19	5	1 19
27 Clarke School	Oral	9 to 12 and 2 to 4.	Ch., Sc., Wc.	165	162	81	71	152	152	489	19	5	1 19
28 Arkansas Institute	Combined.	8 to 11½ and 1½ to 4½.	Art, Car., Ce., Ga., Ha., Pa.	250	210	114	96	46	16	560	15	7	8 2
29 Maryland School	Combined.	7½ to 9½, 10 to 12½, and 1½ to 1½ (b)	Pr., Sh., Ta., Wc.	106	94	54	40	53	23	441	11	3	8 4
30 Nebraska Institute	Combined.	7½ to 9½	Ch., Car., Ch., Wc., Wt.	185	151	91	60	85	32	476	10	4	6 2 5
31 St. Joseph's Institute (N. Y.)	Combined.	9 to 9½	Ch., Car., Dr., Pr., Sh.	377	348	181	167	348	168	614	32	1	31 81
32 West Virginia School	Combined.	8 to 1	Ch., Car., Pr., Sh., Ta.	128	126	66	60	23	13	390	9	6	3 4 1
33 Oregon School	Combined.	8½ to 3½.	Ch., Sh.	54	41	28	20	27	11	176	4	2	2 1 1
34 Md. School for Colored	Combined.	8 to 12 and 1½ to 4.	Ch., Sh.	44	39	22	17	23	11	108	3	2	1 1 1
35 Colored School	Combined.	8 to 12 and 1½ to 2½.	Art, Hak, Car., Dr., Pr., Sc.	98	71	38	31	33	18	229	8	4	4 2 3
36 Central N. Y. Institution	Combined.	9 to 12 and 1½ to 3½.	Ch., Dr., Cl., Pr., Sh., Wc.	144	134	69	65	40	24	427	11	5	6 2 2
37 Western Penna. Institution	Combined.	8 and 11 to 1 and 2½.	Ch., Car., Dr., Pr., Sh.	233	203	106	97	41	41	555	17	6	11 3 4
38 Western New York Inst'n (r)	Manual Alphabet.	8½ to 10½, 10½ to 12½, and 2½ (b)	Ch., Car., Ch., Dr., Sh., Ga.	181	154	77	77	164	...	449	16	1	15 2 5
39 Portland School	Combined.	8 to 1	Ch., Car., Dr., Sh.	70	66	36	30	59	...	152	8	...	8 8
40 Rhode Island Institute	Oral	8½ to 12 and 1½ to 3.	Pr., Sc., Sl.	62	59	34	25	59	59	134	8	...	8 8
41 N. E. Industrial School	Combined.	9 to 12 and 2 to 4.	Non.	25	24	13	11	14	1	75	3	...	1 1
42 South Dakota School (r)	Combined.	8 to 12 and 1½ to 3½.	Ch., Car., Pr., Sh., Wt.	46	42	24	19	31	...	125	4	2	3 1
43 Penna. Inst'n for Colored	Oral	8½ to 11½ and 1 to 2½.	Ch., Car., Pr., Sh., Wt.	76	69	28	41	69	69	131	8	...	8 8
44 New Jersey School	Combined.	8½ to 12½ and 1½ to 3½.	Ch., Car., Dr., Pr., Sh., Wc.	149	134	66	68	76	45	324	10	2	2 5
45 Utah School	Combined.	8 to 12 and 1½ to 1½.	Ch., Car., Pr., Sh., Wc.	65	57	36	21	29	...	121	6	3	3 2
46 Northern New York Institution	Combined.	8 to 1	Ch., Car., Dr., Pr., Sh., Ta.	90	79	49	30	62	8	148	8	1	7 7
47 Florida Institute	Combined.	8 to 1	Ch., Car., Pr.	40	30	14	16	24	...	66	4	1	2 2
48 New Mexico School	Combined.	9 to 12 and 1 to 3.	Non.	14	11	11	...	9	...	24	2	1	1 1
49 Washington School	Combined.	9 to 12 and 1½ to 3½.	Ch., Pr., Sh.	71	...	...	...	...	...	131	...	...	...
50 Texas Institute for Colored	Combined.	8½ to 11½ and 1½ to 3½.	Ch., Sh.	40	35	21	14	1	1	144	3	1	2 2 1
51 North Dakota School	Combined.	9 to 12 and 1½ to 3½.	Ch., Pr., Sh.	46	46	23	23	35	4	73	5	3	2 1 1
52 Home for Training in Speech	Oral	8½ to 11, 11½ to 12½, and 2 to 4.	Ho., Sc., Sl.	44	43	22	21	43	43	59	6	...	6 6
53 Montana School	Combined.	8 to 1	Ch., Sc.	16	14	8	6	3	...	17	2	2	...
54 North Carolina School	Combined.	8 to 1½	Ch., Pr., Fa., Ga., Ma., Pr., Sh.	194	185	96	89	65	60	193	16	6	10 4 6
55 Public Schools				10,046	8,697	4,754	3,943	4,494	2,285	36,578	761	261	510 172 336
56 De-mom'l, Pri., and Day Sch's (r)				968	837	454	403	759	467	4	2,715	118	15 108 8 91
59 Schools in the United States				11,054	9,584	5,208	4,346	5,243	2,762	166	39,293	879	266 613 180 427

* See page 51.
 ** Including those who have left school during the year.
 † A = number taught speech.
 ‡ Including those who teach speech and those who teach by the oral method.
 § Including those who teach speech and those who teach by the oral method.
 ¶ Including those who teach speech and those who teach by the oral method.
 (a) One session for school and one for shops, by a system of rotation.
 (b) Two sessions for school and one for shops, by a system of rotation.
 (c) For 1895-96.
 (d) Different hours for older and younger pupils.
 (e) Three sessions for school and three for shops, by a system of rotation.

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1896-'97—Continued.
PUBLIC SCHOOLS (NOT INCLUDING DAY SCHOOLS) IN THE UNITED STATES—Continued.

Name.	Vacation.	How Supported.	Value of buildings and grounds.	Expenditure last fiscal year.		No. vols. in library.
				For support.	For build- ings and grounds.	
1 American Asylum.	Last Wed. in June to second Wed. in Sept.	Endowment and N. E. States.	\$250,000			2,000
2 New York Institution.	Second Tuesday in June to second Wed. in Sept.	State, counties, and pay pupils.	505,000	\$108,124	\$6,942	7,393
3 Pennsylvania do.	Last Wed. in June to second Wed. in Sept.	State endowment, and pay pupils.	1,000,000	131,634	5,160	6,500
4 Kentucky do.	First Wed. in June to last Wednesday in Sept.	State	140,000	49,715	1,000	2,000
5 Ohio do.	Second Wed. in June to second Wed. in Sept.	do.	750,000	92,786		3,000
6 Virginia do.	Second Wed. in June to first Wed. in Sept.	do.		98,696		
7 Indiana do.	Second Wed. in June to fourth Wed. in Sept.	do.	526,460	98,118	4,000	3,200
8 Tennessee School.	Second Wed. in June to second Wed. in Sept.	do.	160,000	98,198	1,700	1,850
9 North Carolina Institution*.	Second Wed. in June to second Wed. in Sept.	do.	30,000	10,000	7,500	1,000
10 Illinois Institution.	Second Wed. in June to third Wed. in Sept.	do.	455,000	91,000	35,000	11,500
11 Georgia School.	Third Wed. in June to second Wed. in Sept.	do.	80,000	21,762		1,200
12 South Carolina Institution*.	Last Wed. in June to first Wed. in Oct.	State and pay pupils.	85,000			1,800
13 Missouri School.	Second Wed. in June to second Wed. in Sept.	State	301,000	57,000	2,000	1,680
14 Louisiana do.	June 1 to Oct. 1.	do.	300,000	16,600	2,500	400
15 Wisconsin School.	Second Wed. in June to first Wed. in Sept.	do.	120,923	39,694	10,000	2,400
16 Michigan do.	Thurs. after June 7 to third Wed. in Sept.	do.	426,253	63,424	6,000	3,967
17 Mississippi Institution.	Third Wed. in June to first Monday in Oct.	do.	85,000	15,380	16,760	500
18 Iowa School.	Second Wed. in June to second Wed. in Sept.	do.	400,000			2,000
19 Texas Asylum.	at Wed. in June to 1st Wed. in Sept.	do.	225,000			800
20 Columbia Institution.	Wed. before last Wed. June to Thurs. before last Thurs. Sept.	United States and pay pupils.	700,000	69,228	26,000	4,000
21 Alabama do.	June 10 to Sept. 10.	State	125,000	28,000		2,000
22 California do.	Second Wed. in June to fourth Wed. in August.	do.	660,000	37,616		
23 Kansas do.	Second Wed. in June to second Wed. in Sept.	do.	266,000	37,281		
24 Le Conte St. Mary's Inst.	Wed. before last week in June to first Mon. in Sept.	State, counties, and pay pupils.	154,560	30,690	1,587	700
25 Minnesota School.	First Wed. in June to second Wed. in Sept.	State	271,625	49,228		1,632
26 N. Y. Inst. for Imp'vd Deaf.	Third Wed. in June to first Wed. in Sept.	State, counties, and pay pupils.	360,000	48,903	8,602	1,060
27 Clarke School.	Forty weeks after third Mon. in Sept. to third Mon. in Sept.	Endowment, N. E. States, and pay pupils.	135,149	42,209		2,206

Schools for the Deaf in the United States, 1896-'97. 45

28	Arkansas Institute.....	Second Wed. in June to first Wed. in Oct.	State.....	110,000	30,000	15,000	1,000
29	Maryland School.....	Third Wed. in June to second Wed. in Sept.	do.....	265,000	24,848	823	2,675
30	Nebraska Institute.....	Middle of June to middle of Sept.	do.....	100,000	30,791	1,577	1,400
31	St. Joseph's Institute (N. Y.).....	Last Fri. in June to second Mon. in Sept.	State, counties, and pay pupils.....	414,778	66,719	145,804	600
32	West Virginia School*.....	Forty weeks after second Wed. in Sept. to second Wed. in Sept.	State.....	86,400	30,585	147	881
33	Oregon School.....	May 1 to first Wed. in Sept.	do.....	30,000	13,741	2,040	276
34	Id. School for Colored*.....	June 25 to Sept. 10.....	do.....	35,000	9,387	1,248	175
35	Colorado Institute.....	Second week in June to first Wed. in Sept.	do.....	222,394	25,206	1,800	660
36	Central N. Y. Institution.....	Last Wed. in June to first Wed. in Sept.	State and counties.....	130,000	40,631	1,000	600
37	Western Penn'a. Institution.....	Forty-two w'ks after first Mon. in Sept.	State, counties, and pay pupils.....	246,315	49,053	10,544	2,588
38	Portland School.....	Middle of June to second Mon. in Sept.	State, counties, and pay pupils.....	125,000			5,000
39	Rhode Island Institute.....	Third Fri. in June to second Mon. in Sept.	State and city.....	30,000	12,680	23,000	600
40	N. E. Industrial School.....	Second Wed. in June to second Mon. in Sept.	State.....	61,000	15,000	11,000	180
41	South Dakota School.....	Third Wed. in June to second Tues. in Sept.	Voluntary contributions and State.....	15,000	3,000		
42	Penna. Oral School.....	Second Wed. in June to second Wed. in Sept.	State.....	81,675			175
43	New Jersey School.....	June 16 to Sept. 10.....	do.....	155,000	15,083	2,788	80
44	Utah School.....	Second Wed. in June to second Wed. in Sept.	do.....	100,000	38,750	2,665	1,200
45	Northern N. Y. Institution.....	Second Wed. in June to second Wed. in Sept.	State and pay pupils.....	200,000	12,000		60
46	Florida Institute*.....	Second Mon. in June to Oct. 1.....	State and counties.....	70,886	23,003	900	275
47	New Mexico School*.....	Third week in June to first week in Oct.	State.....	25,000	8,506	2,300	
48	Washington State School*.....	Thurs. after last Wed. in May to last Wed. in Aug.	Territory.....	5,000	3,200		250
49	Texas Institute for Colored*.....	June 15 to Sept. 15.....	State.....	110,000			
50	North Dakota School.....	Second Wed. in June to second Wed. in Sept.	do.....	37,800	8,500	300	100
51	Home for Training in Speech.....	None.....	do.....	22,000	8,519		300
52	Montana School*.....	Second Wed. in June to second Wed. in Sept.	State and pay pupils.....	65,000	13,208	7,961	
53	North Carolina School.....	Second Wed. in June to second Wed. in Sept.	State.....	27,317		27,317	
54	Public Schools.....	Second Wed. in June to second Wed. in Sept.	do.....	155,000	25,000	20,000	1,200
55	Denominational, Private, and Day Schools. (See page 48.).....						
56	Schools in the United States*.....						

* Contains a department for the blind also, the expenses of which are included in the statement of expenditures.

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1896-'97—Continued.
B. — DENOMINATIONAL, PRIVATE, AND DAY SCHOOLS IN THE UNITED STATES.

Name.	Location.	Date of Institution	Chief Executive Officer.
1 Horace Mann School for the Deaf	Boston, Mass. (178 Newbury St.)	1869	Miss Sarah Fuller, Principal.
2 Mystic Oral School	Mystic, Conn.	1869	Mrs. Clara M. H. McGuigan, M. D., Sup't.
3 German Evangelical Lutheran Deaf and Dumb Institute	North Detroit, Wayne Co., Mich.	1873	Hermann Uhlig, Director.
4 Chicago Day Schools for the Deaf	Chicago, Ill. (a)	1875	Miss Mary McTowen, Sup'g Principal.
5 Cincinnati Public School for the Deaf	Cincinnati, Ohio, (b)	1875	Miss Caroline Fowbeek, Principal.
6 St. John's Catholic Deaf-Mute Institute	St. Francis, Wis.	1876	Rev. M. M. Gerend, President.
7 F. Knapp's Institute	Baltimore, Md. (Hollins & Parkin Sts.)	1877	Wm. A. Knapp, Principal.
8 St. Louis Day-School for the Deaf	St. Louis, Mo. (c)	1878	Jas. H. Cloud, M. A., Principal.
9 Milwaukee Public Day-School for the Deaf	Milwaukee, Wis. (d)	1883	Miss Frances Wettstein, Principal.
10 McTowen Oral School for Young Deaf Children	Englewood, Ill. (6550 Yale Ave.)	1883	Miss Louise C. Morgan, Principal.
11 Epiphany School for the Deaf	Chicago, Ill. (409 S. May St.)	1884	Mary C. Hendrick, Principal.
12 Marie Consilia School for the Deaf	St. Louis, Mo. (1849 Cass Ave.)	1885	Sister Mary Adele, Principal.
13 Keeler Private Articulation Class for Deaf-Mutes	New York, N. Y. (37 E. 46th St.)	1885	Miss Sarah Warren Keeler, Principal.
14 Cincinnati Oral School for the Deaf	Cincinnati, Ohio (b)	1886	Miss V. A. Osborn, Principal.
15 Evansville Oral School for the Deaf	Evansville, Ind. (Cor. 7th and Vine Sts.)	1886	Paul Lange, M. A., Principal.
16 La Crosse Oral School for the Deaf	La Crosse, Wis.	1887	Miss Minnie E. Taylor, Principal.
17 Sarah Fuller Home for Little Children Who Cannot Hear	West Medford, Mass. (Woburn St.)	1887	Miss Eliza L. Clark, Principal & Matron.
18 Eastern Iowa School for the Deaf	Dubuque, Iowa	1888	Dr. Coursey French, Principal.
19 Albany Home School for the Oral Instruction of the Deaf	98 N. Pine Ave., Pine Hills, Alb'y, N. Y.	1889	Miss Mary McGuire, Principal and Sup't.
20 Notre Dame School for the Deaf	Cincinnati, O. (East Sixth St.)	1890	Sister M. of the S. Heart, S. N. D., Prin.
21 Charitable Deaf-Mute Institution of the Holy Rosary	Chinchuba, St. Tammany Parish, La.	1890	Very Rev. Canon H. C. Mignot, Pres.
22 Wausau Day School for the Deaf	Wausau, Wis.	1890	Miss Katie A. Murphy, Principal.
23 Cleveland Day School for the Deaf	Cleveland, Ohio (f)	1892	Edward R. Carroll, Principal.
24 St. Joseph's Deaf-Mute Institute for Boys	Longwood Place, South St. Louis, Mo.	1893	Sister Mary Adelina, Principal.
25 Manitowish Day-School for the Deaf	Manitowish, Wis. (8th St.)	1893	Miss Ada S. Locke, Principal.
26 Wright-Humason School	New York, N. Y. (42 West 76th st.)	1894	{ Thos. A. Humason, M. A., Ph. D. } { John Dutton Wright, M. A. }
27 Sheboygan Day-School for the Deaf	Sheboygan, Wis.	1894	Miss Ray Kriebe, Principal.
28 Detroit Day-School for the Deaf	Detroit, Mich. (g)	1894	Miss M. Lizzie Donohoe, Principal.
29 Minneapolis Day-School for the Deaf	Minneapolis, Minn. (h)	1895	Miss Alice I. Stout, Principal.
30 Eau Claire Day-School for the Deaf	Eau Claire, Wis.	1895	Miss Jennie C. Smith, Principal.
31 Fond du Lac School for the Deaf	Fond du Lac, Wis.	1895	Miss Anna Sullivan, Principal.
32 Marinette School for the Deaf	Marinette, Wis. (1115 Main St.)	1895	Miss Frances O. Ellis, Principal.
33 Oshkosh Day-School for the Deaf	Oshkosh, Wis.	1895	Mrs. Jennie Bright Holden, Principal.
34 St. Joseph's School and Home for Deaf-Mutes	North Temescal, Cal.	1895	Mother Valerian, Principal.
34 Denominational, Private, and Day Schools.			

(a) There are five schools in different parts of the city. (b) Court Street, west of John Street. (c) Cor. Ninth and Wash Streets.
Prairie Streets. (d) Cor. Rockwell and Bond Streets. (e) Cor. Twelfth and Brigham Streets. (f) Cor. Sixth Ave., S., and Fifteenth Street.
(g) Cor. Twelfth and Brigham Streets. (h) Cor. Sixth Ave., S., and Fifteenth Street.

Schools for the Deaf in the United States, 1896-'97. 47

NUMBER OF PUPILS.

Name.	Methods of Instruction.*	School-hours.	Industries Taught.*	Withdrew year 1896.**	PRESENT NOV. 15, 1896.			PRESENT NUMBER OF INSTRUCTORS††		
					Total.	Male.	Female.	Total.	Male.	Female.
1 Horace Mann School.	Oral	9 to 2	Art, Cl, Pr, Se, Sl, and use of tools.	128	110	54	56	110	421	13
2 Mystic Oral School.	Oral	9 to 12 and 3 to 4.	Dr. Ho, Sh, Ta, Wc.	30	24	9	15	24	8	13
3 German Lutheran Institute.	Oral	9 to 12 and 3 to 4.	None.	41	34	14	20	34	214	3
4 Chicago Schools.	Combined.	9 to 12 and 1 to 3.	Wood and metal working.	95	95	54	41	93	215	3
5 Cincinnati Public School.	Manual.	8½ to 2	Sewing.	7	6	3	3	29	12	10
6 St. John's Catholic Institute.	Combined.	7½ hours.	Car, Pa, Wc.	28	26	13	13	1	120	1
7 Mr. Knapp's Institute; or	Oral	8½ to 12 and 1 to 3.	None.	25	25	15	10	25	246	2
8 St. Louis Day School.	Oral	8½ to 11½ & 12½ to 2½.	None.	46	35	20	15	33	196	1
9 Milwaukee Day School.	Oral	8½ to 11½ & 12½ to 2½.	None.	50	49	31	18	49	121	3
10 McCowan Oral School.	Oral	8½ to 11½ & 12½ to 2½.	Cl, Pa, Pa, Se, Sl.	32	34	13	21	24	9	6
11 Epiphany School.	Combined.	9½ to 11½ and 1 to 4.	Cl, Pa, Wc.	118	103	55	48	103	222	9
12 Marie Cousin Institute.	Combined.	9 to 12 and 12½ to 2.	Dr, Pr.	41	36	24	12	40	429	2
13 Kiefer Class.	Oral	8½ to 11½ and 1½ to 4.	Se, Sl.	35	31	13	18	31	66	4
14 Cincinnati Oral School.	Oral	8½ to 11½ and 1½ to 4.	None.	12	10	4	6	3	47	1
15 Evansville School.	Combined.	8½ to 11½ and 1½ to 3½.	None.	11	8	2	6	8	17	1
16 La Crosse (oral) School.	Oral	9 to 11½ and 1½ to 3½.	None.	11	8	2	6	8	40	4
17 Sarah Fuller Home.	Oral	9 to 11½ and 1½ to 3½.	None.	5	5	2	3	5	18	1
18 Eastern Iowa School.	Manual.	9 to 12 and 2 to 4.	Cl, Se.	19	15	9	6	15	30	3
19 Albany Home School.	Oral	8 to 11½ and 1 to 3.	None.	12	12	6	6	12	27	4
20 Notre Dame School.	Combined.	9 to 12½, 3, 4 to 6.	Dr, Se.	53	51	30	21	23	72	3
21 Institution of the Holy Rosary.	Oral	9 to 12½ and 1 to 3½.	None.	37	35	7	3	10	16	2
22 Warsaw Day School.	Oral	8½ to 11½ and 1½ to 3½.	None.	37	35	21	14	19	53	2
23 Cleveland School.	Combined.	9 to 11½ and 1 to 3½.	None.	10	12	7	5	9	22	1
24 St. Joseph's Institute. Mo.	Combined.	9 to 11½ and 1 to 3½.	None.	13	12	7	5	9	12	1
25 Mansfield School.	Oral	9 to 12 and 1½ to 3.	None.	23	12	7	5	16	26	8
26 Wright-Huntley School.	Oral	9 to 12 and 1½ to 3.	None.	7	7	5	2	7	8	1
27 Shoboygan School.	Oral	9 to 12 and 1½ to 3.	None.	13	13	7	6	13	21	1
28 Detroit Day School.	Oral	9 to 12 and 1 to 3.	None.	24	23	15	8	23	24	3
29 Minneapolis Day School.	Combined.	9 to 12 and 1 to 3.	Manual Training.	7	6	1	5	6	7	1
30 East Chicago School.	Oral	9 to 12 and 1½ to 3½.	None.	7	6	3	3	6	7	1
31 East Chicago School.	Oral	9 to 11½ and 1½ to 2½.	None.	7	6	3	3	6	7	1
32 Marlborough School.	Oral	9 to 11½ and 1½ to 2½.	None.	12	9	6	3	9	13	1
33 Oaklawn School.	Oral	9 to 12 and 12 to 2½.	None.	12	9	6	3	9	13	1
34 St. Joseph's Institute (Cal).	Combined.	Five hours.	Art, Dr, Em.	968	857	484	403	759	467	4
35 Deacon, Private, and Day Schools.				968	857	484	403	759	467	4

* See page 51.
 † Including the pupils who have left during the year.
 ‡ A = number taught wholly or chiefly by the Oral method. C = number taught wholly or chiefly by the Articular method.
 †† Including those who teach speech and those who teach by speech.
 ‡‡ This school also admits hearing pupils, but the statistics of only the deaf pupils and their instructors are here given.
 (a) For 1895-'96.

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1896-'97—Continued.
B. DENOMINATIONAL, PRIVATE, AND DAY SCHOOLS IN THE UNITED STATES—Continued.

Name.	Vacation.	How Supported.
1 Horace Mann School.....	Last Tuesday in June to first Wed. in Sept.	State and city.
2 Mystic Oral School.....	Twelve weeks.	Tuition fees and State and towns.
3 German Evangelical Lutheran Institute.....	July 15th to September 1st.	Tuition fees and Lutheran Congregations.
4 Chicago Schools.....	June 28 to first Monday in Sept.	City.
5 Cincinnati Public School.....	June 23 to second Mon. in Sept.	City.
6 St. John's Catholic Institute.....	End of June to first week in Sept.	Voluntary contributions and tuition fees.
7 Mr. Knapp's Institute.....	Second Friday in June to first Mon. in Sept.	Tuition fees and State appropriations.
8 St. Louis Day-School.....	Last Fri. in June to first Mon. in Sept.	City.
9 Milwaukee Day-School.....	None.	State and city and county.
10 McClellan Oral School.....	Last Friday in June to first Monday in Sept.	Tuition fees and voluntary contributions.
11 Ephraim School.....	Last week of June to first week of Sept.	Tuition fees and voluntary subscriptions.
12 Marie Consilia Institute.....	Third Wednesday in June to second week in Sept.	Tuition fees.
13 Kehler Class.....	June 20 to Sept. 8.	State and city.
14 Cincinnati Oral School.....	First Thurs. in June to first Mon. in Sept.	City.
15 Evansville School.....	June 27 to first Mon. in Sept.	State and city.
16 La Crosse Oral School.....	No regular vacations.	Private subscription.
17 Sarah Fuller Home.....	June 12 to Sept. 15.	Contributions, fairs, and exhibitions.
18 Eastern Iowa School.....	Last of June to second week in September.	Tuition fees and county appropriations.
19 Albany Home School.....	15th of June to first week in September.	Voluntary contributions and tuition fees.
20 Notre Dame School.....	June 1 to September 1.	State and city.
21 Institution of the Holy Rosary.....	June 18 to Sept. 8.	City.
22 Wausau Oral School.....	June 15 to Sept. 15.	Voluntary contributions and tuition fees.
23 Cleveland School.....	June 30 to Sept. 1.	State and City.
24 St. Joseph's Institute (Mo.).....	Last of June to first of Sept.	Tuition fees.
25 Manito-wish School.....	June 7 to Oct. 1.	State and City.
26 Wright-Humason School.....	Fourteen weeks.	City.
27 Shelbygan School.....	Middle of June to first Mon. in Sept.	City.
28 Detroit Day-School.....	Sixteen weeks.	State and City.
29 Minneapolis Day School.....	June 1 to Sept. 9.	State and City.
30 Eau Claire School.....	Last of June to first of Sept.	State and City.
31 Fond du Lac School.....	Months of July and August.	State and City.
32 Marinette School.....	Two months.	Industry of sisters and tuition fees.
33 Oak Knob School.....		
34 St. Joseph's Institute (Cal.).....		
34 Denominational, Private, and Day Schools.		

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1896-'97--Continued.

C.—SCHOOLS IN CANADA:

Name.	Location.	Date of open- ing.	Chief Executive Officer.
1 Catholic Male Deaf and Dumb Institution for the Province of Quebec.	Mile-End, near Montreal, P. Q.	1848	Rev. Alf. Bélanger, C. S. V., Director.
2 Catholic Female Deaf and Dumb Institution.	Montreal, P. Q. (386 St. Denis St.)	1851	Sister Philip of Jesus, Superioress.
3 Halifax Female Deaf and Dumb.	Halifax, N. S.	1857	James Fearon, Principal.
4 Ontario Institution for the Deaf and Dumb.	Bellefleur, Ontario.	1870	Robert Mathison, M. A., Superintendent.
5 Mackay Institution for Protestant Deaf-Mutes and the Blind.	Montreal, P. Q. (a)	1870	Mrs. H. E. Ashcroft, Superintendent.
6 Frederickton Institution for the Education of the Deaf and Dumb.	Fredericton, N. B.	1883	Albert F. Woodbridge, Principal.
7 Manitoba Deaf and Dumb Institution.	Winnipeg, Manitoba.	1888	D. W. McDermid, Principal.

Name.		Methods of Instruction.*	School-hours.	Industries Taught.*	NUMBER OF PUPILS.				PRESENT NUMBER OF INSTRUCTORS†									
					PRESENT NOV. 15, 1896.													
					Total.		Taught Speech,†		Total have received instruction.		Total.		Male.		Female.		Deaf.	
					A.	B.†	C.†											
1	Cath. Inst. (Male.)	(Oral) Dep. Oral.	6½ hours.	Be, Bl, Bo, Cab, Car, Fa, Ga, Pa, Pr, Sh, Ta, Wc.	47	41	41	41	41	735	7	7	7	7	7	7	7	7
		{ Man. do. Manual	6½ hours.		84	71	71											
2	Cath. Inst. (Fem.)	(Oral) Dep. Oral.	6 hours.	Art., Em., Ho., Ku., Se., Wem.	135	93	93	93	93	809	18	18	18	18	18	18	18	18
3	Halifax Institution	do.	9 to 11, 11¼ to 12½ and 2 to 4	Ga.	91	62	62	62	62	3	3	3	3	3	3	3	3	3
4	Ontario Institution	do.	9 to 12 and 1½ to 3.	Car., Dr., Fr., Sh., Ta.	310	266	163	114	47	1,085	17	7	10	6	1	1	1	1
5	Mackay Institution	do.	9 to 12 and 1 to 3.	Cab., Car., Dr., Fr., Sh., Wc.	63	54	54	54	24	17	183	6	6	6	6	6	6	6
6	Fredericton Institution	do.	9 to 12 and 2 to 4.	None.	43	34	22	22	22	22	75	6	6	6	6	6	6	6
7	Manitoba Institution	do.	9 to 11½ and 1½ to 9½.	Co., Pa., Pr., Se., Wc.	50	43	22	21	11	8	73	5	5	5	5	5	5	5
Schools in Canada.					910	761	395	366	293	172	2,930	85	33	52	16	32	52	16

See page 51.

* See page 51.

the Oral method. C = number taught wholly or chiefly by the Auricular method. (a) Notre Dame de Grace

the Oral method. C = number taught wholly or chiefly by the Auricular method. (a) Notre Dame de Grace.

the Oral method. C = number taught wholly or chiefly by the Auricular method. (a) Notre Dame de Grace.

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1896-'97—Continued.
C.—SCHOOLS IN CANADA—Continued.

Name.	Vacation.	How Supported.	Value of buildings and grounds.	EXPENDITURE LAST FISCAL YEAR.		No. volumes in library.
				For support.	For buildings and grounds.	
1 Catholic Inst'n. (Male).....	Third Wed. in June to first Wed. in Sept.	Province, pupils, and vol. contributions.....	\$150,000	.....	.....	1,600
2 Catholic Inst'n. (Female).....	July 1st to Sept. 1st.....	Province and voluntary contributions.....	.....	.....	.....	4,098
3 Halifax Institution.....	Last week in June to first week in Sept.	Province and voluntary contributions.....	80,000	\$5,974	\$40,879	.....
4 Ontario Institution.....	Third Wed. in June to second Wed. in Sept.	Province.....	237,500	46,022	450	2,480
5 Mackay Institution.....	Third Wed. in June to second Wed. in Sept.	Province, pupils, and vol. contributions.....	60,000	10,278	28,708	770
6 Frederick Institution.....	July 1 to Sept. 1.....	Province and voluntary contributions.....	20,000	5,466	.....	500
7 Manitoba Institution.....	Second Wed. in June to second Wed. in Sept.	Province.....	35,000	11,430	500	380
7 Schools in Canada.						

METHODS OF INSTRUCTION AND INDUSTRIES TAUGHT IN AMERICAN SCHOOLS.

THE "Methods of Instruction" named in the preceding Tabular Statement may be defined as follows :

I. *The Manual Method.*—Signs, the manual alphabet, and writing are the chief means used in the instruction of the pupils, and the principal objects aimed at are mental development and facility in the comprehension and use of written language. The degree of relative importance given to these three means varies in different schools ; but it is a difference only in degree, and the end aimed at is the same in all.

II. *The Oral Method.*—Speech and speech-reading, together with writing, are made the chief means of instruction, and facility in speech and speech-reading, as well as mental development and written language, is aimed at. There is a difference in different schools in the extent to which the use of natural signs is allowed in the early part of the course, and also in the prominence given to writing as an auxiliary to speech and speech-reading in the course of instruction ; but they are differences only in degree, and the end aimed at is the same in all.

III.—*The Manual Alphabet Method.*—The general instruction of the pupils in and out of school is carried on by means of the orthographic and phonetic manuals, and by writing and speech.

IV. *The Auricular Method.*—The hearing of semi-deaf pupils is developed and improved to the greatest possible extent, and, with or without the aid of artificial appliances, their education is carried on chiefly through the use of speech and hearing, together with writing. The aim of the method is to graduate its pupils as hard-of-hearing speaking people, instead of deaf-mutes.

V. *The Combined System.*—Speech and speech-reading are regarded as very important, but mental development and the acquisition of language are regarded as still more important. It is believed that in many cases mental development and the acquisition of language can be best promoted by the Manual method, and, so far as circumstances permit, such method is chosen for each pupil as seems best adapted for his individual case. Speech and speech-reading are taught where the measure of success seems likely to justify the labor expended, and in some of the schools some of the pupils are taught wholly or chiefly by the Oral method or by the Auricular method.

The "Industries Taught" in American Schools for the Deaf, mostly designated by abbreviations in the preceding Tabular Statement, are : Art, Baking (Bak.), Basket-making (Bas.), Blacksmithing (Bl.), Book-binding (Bo.), Bricklaying (Bk.), Broom-making (Br.), Cabinet-making (Cab.), Carpentry (Car.), Chalk-engraving (Ce.), Chair-making (Ch.), Cooking (Ck.), Clay-modelling (Cl.), Coopers (Co.), China-painting (Cp.), Dress-making (Dr.), Embroidery (Em.), Engineering (En.), Fancy-work

(Fan.), Farming (Fa.), Floriculture (Fl.), Gardening (Ga.), Glazing (Gl.), Harness Repairing (Ha.), Housework (Ho.), Horticulture (Hor.), Knitting (Kn.), Manual-training (Man.), Mattress-making (Ma.), Painting (Pa.), Paper-hanging (Pap.), Plastering (Pl.), Plate-engraving (Pe.), Pictorial-engraving (Pic.), Photography (Ph.), Printing (Pr.), Sewing (Se.), Shoe-making (Sh.), Sloyd (Sl.), Stone-laying (St.), Tailoring (Ta.), Weaving (Wea.), Wood-carving (Wc.), Wood-engraving (We.), Wood-turning (Wt.), Wood-working, and the Use of Tools.

SCHOOL ITEMS.

Arkansas Institute.—Miss Mary Beattie, formerly a teacher in the Minnesota School, has been appointed teacher of art in the place of Miss Tallant, who resigned to be married; Miss Annie Carrington, a member of the Normal Department last year, takes the place of Miss Mary Carroll, who has returned to the McCowen School; and Mr. I. S. Humbert, of Virginia, a teacher of fifteen years' experience and familiar with the deaf and their language, takes the place of Miss Hope Loughborough, who is resting for a year on account of ill-health.

Central New York Institution.—Miss Bertha Wilkes, Miss Gertrude Mosser, and Miss Sara K. Marshall have resigned their positions as teachers. Miss Marie Wright Comstock, Miss Claudia Redd, Miss Letitia Booth, and Miss Mabel K. Jones have been added to the corps of instruction.

Chicago Day-Schools.—Dr. Alice Bellows, formerly Miss Alice Christie, for several years a teacher in the Iowa and Wisconsin Schools, has received an appointment as teacher.

Eastern Iowa School.—Linnie Haguewood, the deaf-blind girl, formerly in this School, has been admitted into the Institution for the Blind at Vinton, Iowa. The people of the State subscribed about \$1,500 for her education, as no provision for her special instruction was made by the Institution. She is learning to speak and to read the speech of others by touch.

Edgbaston (Birmingham, England) Institution.—Extensive additions and repairs have been made to the buildings. The master's residence has been enlarged and converted to the uses of the school, Mr. Townsend finding shelter apart from

the Institution. A new dining-room has been built and the scullery accommodations increased. Heating by hot water has been introduced into the dormitories, the play-grounds have been extended, and other important improvements made. In the school-rooms the large slate tablets are replaced by the application to the walls of Bassett's cement, which gives a smooth white surface, on which black chalk is used for writing. "The durability and suitability of the cement have to be determined by experience, but, whatever may be the result, the present effect is to add largely to the light and fresh appearance of the room."

Indiana Institution.—Mr. Johnson's "Outlines" for the year 1896-'97, in addition to the usual information concerning the assignment of teachers, course of study, etc., contains selections from text-books and other writings on psychology and child-study by A. S. Welsh, Jerome Allen, G. Stanley Hall, and others, which are to be used as the basis for discussions on "mind and mind-growth" at teachers' meetings during the year.

Georgia School.—Mr. Henry B. Watts, for three-years boys' supervisor, who recently entered upon the career of a teacher, has been forced to resign on account of ill-health. Mr. Connor writes that he was earnest and efficient in his work, winning the esteem of every one, and much regret is expressed at his early retirement from the profession.

Horace Munn School.—At the meeting of the Woman's Congress held in Boston last October, Miss Fuller read a paper on the subject of "Deaf Children in the Home," and afterwards a reception, with illustrative class-room work by the pupils, was given the Congress at the School.

Illinois Institution.—The Twenty-Eighth Biennial Report, recently issued, is profusely illustrated, and contains an unusual amount of valuable and interesting information concerning the school, its methods and departments of instruction, the causes of deafness, the examination of the pupils' ears, etc.

Louisiana Institution.—Miss Ernestine Jastremski, daughter of the superintendent, has been appointed teacher of the beginners' oral class to succeed Miss H. I. Patterson, who, in

turn, was promoted to fill the position made vacant by Miss Belle Howard. On account of the increase in the number of pupils, an additional beginners' class was inaugurated in the manual department, which has been put in charge of Miss Mary E. Land, a graduate of Newcomb Ladies' College of New Orleans. She is also the instructor in the calisthenic classes.

Mackay Institution.—Miss Curlette, teacher of articulation, resigned her position in June to accept the principalship of the Presbyterian Ladies' College in Toronto. Miss Johnson, a teacher of experience with hearing children, has been appointed to fill the vacancy. Miss Etta Wiggett, a former pupil, was also added to the staff to take charge of the junior class.

During the vacation a number of improvements were made. A more modern system of drainage was put in, some outside buildings erected, and new furnaces replaced the old ones.

Manitoba Institution.—Miss Williams has resigned to re turn to teaching in a common school. Mr. Cook, formerly printer and supervisor of boys, has been appointed a teacher in addition to his duties as foreman of the printing office. Miss Spaight has taken charge of the articulation work.

Milwaukee Day-School.—Mrs. Sara Sorenson and Miss Catherine Keating have been added to the corps of instructors.

New Jersey School.—Miss Mary D. Tilson has been unable to resume her work this term on account of serious illness. Miss Estelle M. Dey has been employed temporarily in her place. Miss Tilson hopes to be able to return to work very soon.

New York Institution.—As has been the custom since 1874, the 19th of November last was observed in commemoration of the birth of Dr. Harvey P. Peet. Of late years the exercises have been extended to include the life-work of other prominent benefactors of the deaf. In addition to the special exercises of the day, papers were presented by the teachers detailing the careers of the Abbe de l'Épée, Thomas Hopkins Gallaudet, Laurent Clerc, Luzerne Rae, John A. Jacobs, Barnabas M. Fay, Thomas MacIntire, Jacob Van Nostrand,

Henry Winter Syle, Erastus Brooks, Sarah Cuddeback, John Carlin, Zerah Colburn Whipple, Alice Elizabeth Worcester, and William Gurney Jenkins.

On the 4th of December there was a double celebration of the fortieth anniversary of the removal of the Institution to Washington Heights and of Dr. Isaac Lewis Peet's seventy-second birthday. Addresses were made by Mr. Currier, Dr. Peet, and Mr. C. W. Van Tassell, who had been a pupil in the former home of the Institution on Fiftieth street.

North Carolina (Morganton) School.—Miss Flora Dula, who has recently completed the course of the normal class, has been added to the corps of instruction.

North Dakota School.—The School is so full that more room must be had before any more pupils can be taken.

The shoe-making trade has been introduced this year. Three boys work at the trade at present.

A little paper called the *School Record* is published from three to five times a week, the material being furnished by the teachers. It is intended for circulation among the pupils only.

Northern New York Institution.—Miss Emma D. Reed, Miss Vinnie Louise Wood, and Miss Belle Howard have been appointed as additional teachers.

Oshkosh Day-School.—A parents' and friends' association, a parents' study class, and a night-school for the adult deaf have been organized in connection with the School. The Association is about to put a library into the school-rooms for the use of the children.

Oregon School.—Mr. Ralph H. Drought, B. S., a graduate of Gallaudet College, and Miss Cordelia Wallace, a former pupil of this School, have been added to the teaching force.

Pennsylvania Institution.—Miss Louise E. Sparhawk, a graduate of Drexel Institute, Philadelphia, has been appointed instructor in sloyd work, and Mr. Otto Herold, of the School of Industrial Arts, has been appointed assistant instructor of drawing.

Miss Louise Kellner is delivering a series of practical lectures to the advanced pupils on physiology and hygiene.

The board have under consideration the advisability of introducing a typesetting machine of the most approved kind in order to instruct the class in printing in the use of such machines. The probable cost will be \$3,000.

Pennsylvania Oral School.—Miss Maud Williams, who was trained for the work in this School, has been added to the corps of instructors.

South Carolina School.—Mrs. Laura C. Irby, a teacher here for many years, the eldest daughter of the Rev. N. P. Walker, the founder of the School, died on the 10th of October last. "She was apt to teach, and possessed rare illustrative ability. She was especially vigorous in carrying a point, and strong and unwavering in her convictions. Consideration for those beneath her was a prominent trait in her character."

Miss Jane M. Washington, a niece of Mr. Tate of the Minnesota School, and a graduate of a female college in Mississippi, has been added to the corps of articulation teachers.

Texas School.—Mr. A. H. Walker resigned his position as teacher last June to accept a place in the Tennessee School. The place has been filled by the promotion of Mr. W. A. Scott. The position in the primary department made vacant by the promotion of other teachers is filled by Miss Olivia Thomas.

Two new oral classes have been formed in order that all new pupils who have apparent ability to acquire speech may have a fair trial.

Utah School.—Mr. Edward P. Clarke, M. A., a graduate of Tufts College and of the Normal Department of Gallaudet College, has been added to the corps of instruction.

The *Deseret Eagle* describes the situation of the new home of the School as follows:

Our location is a most admirable one. The plateau upon which we are situated gives us a commanding view in front of the snug and pretty city of Ogden, the winding Weber river just beyond, and further across the level country the Great Salt Lake. Behind us tower the rugged Wasatch mountains with peaks some ten thousand feet above the level of the sea. The picturesque Ogden canyon, with its many charms, is just a stone's throw to the east. The sparkling Ogden river flows by us on the north to join the Weber and the Great Salt Lake. The view of the valley to the northwest, with its numerous thriving farming towns and checkered fields, presents a grand picture. All this with our large area of land, the

orchard, the farm, the lawns, the groves of trees, and beautiful buildings reaches far beyond the expectation of many of us.

Virginia Institution.—Miss G. M. Chidester has been appointed teacher of the fourth class.

West Virginia School.—The board of management have decided to recommend the separation of the department for the blind from that for the deaf.

Western New York Institution.—Miss Lucy Burrows McMaster, a faithful and successful teacher in this Institution since 1882, died on the 20th of October last, of appendicitis. "She loved the children, she loved all her co-workers, and she had a gracious tact which guided her sympathy with others and always brought the right and helpful word to her lips."

Wisconsin School.—In connection with the Tabular Statement concerning this School, published in the present number of the *Annals*, Mr. Swiler says that under the present schedule four hours are given daily to recitations; three and one-half hours to shop work; and from one to two hours for evening study, according to the age and grade of the pupil. This is for the advanced pupils; the intermediate pupils have four and one-half hours in school recitations, and two hours daily for manual training. The lower classes have recitations in two sessions, four and one-half hours daily, without the manual training work, until they have reached the third year, or third grade. Under the present arrangement the older pupils have four hours for recitations in the forenoon; three and one half hours, uninterrupted, for work in the afternoon; the intermediate pupils have this reversed; and the lower grades have two short sessions of school, forenoon and afternoon, with two and a half hours intermission.

Mr. E. J. Bending, formerly of the Manual Training department of the Florida Agricultural College, is the instructor for boys in manual training; and Miss A. F. Struckmeyer teaches the domestic arts, including all sorts of needle-work and cooking. In connection with the manual training work, pupils have mechanical drawing; and in addition thereto Miss Sorrenson still continues the work of the studio proper, in free-hand drawing, and in black and white, oil and water colors.

The equipment of the manual training school is still incomplete, but will include Buffalo forges, Reed and Putnam lathes, etc., supplemented by a full equipment of tools and the modern conveniences for such work.

Wright-Humason School.—Miss Anna Fitch Jerome has assumed charge of the kindergarten work, and Miss Catherine Coaker, formerly of the McCowen Oral School, has also been added to the corps of instruction.

Robert H. Moulton, who last year completed his preparation for college, has passed the requisite examinations and is now a regular member of the freshman class of Columbia College in the city of New York.

MISCELLANEOUS.

Politics in Schools for the Deaf.—The principle of civil service reform seems to have made gratifying progress in schools for the deaf within recent years, for since the last election we hear of only two schools in which a change of administration is even suggested. We sincerely hope that in these schools also wisdom and justice may prevail over partisanship and the present superintendents may be retained in their places. They are both excellent men and have conducted the institutions under their charge admirably. A change at the present time would not only injure the institutions directly concerned, but would retard the cause of the education of the deaf throughout the whole country by helping to perpetuate what has done so much harm in some of our schools in former years, the influence of party politics in their management.

Free Maintenance as well as Education for All.—In the last Report of the California Institution, Dr. Wilkinson, after expressing satisfaction at the decision of the New York legislature and judiciary, mentioned in the last October number of the *Annals*, page 353, to the effect that the education of the deaf is not a charity, and that the provision for maintenance, being subordinate and incidental to the purpose of education,

should not determine the classification of institutions for the deaf as charitable, discusses the question of free maintenance as well as education for all, as follows:

But it is sometimes asked, "Ought not the rich to pay for the maintenance of their children, even if the tuition be free?" It is a pertinent question, and is entitled to respectful consideration. Nobody in these days doubts the duty of the State to provide for the education and maintenance of those deaf and blind children whose parents and guardians may not be able to pay for such education, but there seems to be an element of justice in requiring those who have the means to pay for the support of their children while in the Institution. The matter has been discussed in many Legislatures, and the consensus of opinion, as evidenced in legislative action, is in favor of making maintenance as well as tuition free. The reasons are:

First—The small income which would be derived from pay-pupils* would not compensate for the class distinctions which would inevitably creep into the school. No one now can claim special privileges by reason of wealth. Rich and poor sit at the same table, eat the same food, occupy the same dormitory, and are taught by the same teachers. No one is released or exempt from certain duties because he "pays"; no one is called upon to perform certain functions in the household economy because he is poor. No parent can claim, ask, or obtain special privileges because he is able and willing to pay for them. This desirable equality would be jeopardized, to say the least, by exacting fees from parents who have money.

Second—Experience has proved that parents will not go before a court and confess to poverty. The great majority of our pupils are the children

*In the New England States, New York, and Pennsylvania, the institutions for the deaf and the blind are private corporations with endowments, and the State pays so much for each child. I have taken the pains to look up the proportion of income derived from pay-pupils in these schools. The figures are taken from the latest reports on hand:

	Total income.	From pay pupils.	Percentage.
<i>New York—</i>			
N. Y. C., 162d street.....	\$103,441 00	\$986 00	.0095
N. Y. C., 31st street.....	77,049 00	833 00	.01
Rochester.....	58,806 00	.....	.00
Rome.....	40,296 00	.....	.00
<i>Pennsylvania—</i>			
Philadelphia Blind.....	70,296 00	188 00	.0026
Philadelphia Deaf.....	122,463 00	2,937 00	.024
Pittsburg.....	27,839 00	.....	.00

of respectable, hard-working people, farmers, laborers, mechanics, clerks, ministers, and men of limited income, but honest, law-abiding, debt-paying citizens, who would refuse to go before a Superior Judge and plead pauperism for a permit to have their children admitted to the Institution. It may be a mistaken pride—I don't think it is—but the feeling exists, and cannot be overcome. The experiment of "pay-pupils" has been tried twice in one of the Western institutions, and each time nearly broke up the school, and the law was repealed at the following Legislature.

Third—The precedent of other States is against such action. Except in the Institutions which are incorporated, and whose property vests in a private Board of Directors, as is the case in New York, Pennsylvania, and the New England States, schools for the deaf and the blind in nearly all States offer their benefits free to deaf or blind children whose parents or guardians are residents of the commonwealth.

Fourth—The rich man claims that he is compelled to pay taxes for the support of all the children in the Institution, and that, when his own child requires the training of the school, he ought not to be obliged to pay in addition to his taxes an extra sum for its support.

The "Unique" Touch Alphabet.—Mr. Henry Woollen, of 41 Elspeth Road, Clapham Common, S.W., London, England, has published a "Unique Practical Deaf-Mute Manual Alphabet, for use in both 'oral' and 'sign' classes, based on the perfected natural physiological alphabet (balanced and self-proven)." Like the Dalgarno alphabet (*Annals*, ix, 19), it is made by touching different parts of the hand, and, like the Lyon alphabet (*Annals*, xxxvii, 53), it is phonetic. Unlike other manual alphabets, it provides a period, colon, semi-colon, and comma for punctuation. The phonetic spelling adopted, judging from the illustrations given, does not diminish, but in some cases increases, the number of letters required; thus *how*, *joy*, and *new* are spelled *hajOO*, *dshojej*, and *nejOO*. The *British Deaf Monthly* for December is informed that Mr. Woollen "is not deaf, and has not come in any close contact with the deaf." The alphabet may be obtained from the author, postage paid, for 14 cents.

Hearing through the Fingers.—An article has recently been "going the rounds" of the American newspapers mentioning an invention made by Professor Thomas McKendrick, of Glasgow, Scotland, by which a deaf person, by dipping his

hands in a tub of water containing a solution of salt, and by the aid of a series of electric batteries, a telephone transmitter, and a phonograph, is enabled to hear and enjoy music. Some of the statements of the article were evidently exaggerated, but thinking there might be some element of truth in them we wrote to Mr. W. H. Addison, Principal of the Glasgow Institution for the Deaf, for further information. He replies under date of December 8, 1896:

Professor McKendrick's invention consists of a microphone for intensifying the sound, which may be produced either by the phonograph or by the voice. A current of electricity is derived from half a dozen of Obach's dry cells, and a small secondary coil is thrown into the circuit. The wires, which terminate in two platinum plates, are ultimately led into a glass vessel containing a solution of common salt or sulphuric acid.

The invention was tested upon four of our pupils last Saturday. I was not able to be present, having to be in London on business. Various tunes were played by Professor McKendrick's machine: 1st, as on the organ; 2d, as on the English concertina; 3d, as on the piano; 4th, as on the saxhorn; and, 5th, as on the bugle.

The pupils put the forefingers of both hands into glasses, containing a solution of common salt or sulphuric acid, which were connected with the machine by conductors. The pupils were told to nod or move their heads in unison with the vibrations which they felt.

The first pupil, Flora Campbell,—aged 15, lost hearing four years ago, cannot hear large bell nor loud shouting, is what is commonly called stone-deaf, a very intelligent girl, and fully appreciating the nature of the experiment—felt the vibrations, but did not at first respond to them freely. This, however, was probably owing to timidity, as in the two last experiments—those with the saxhorn and bugle—she responded quite freely.

With regard to the other three,—Annie Kerr, age 15; David Fyfe, age 14; and William McCandless, age 12—all born deaf—they each responded to the vibrations, especially the first two, seeming to be very sensitive to the vibrations, and keeping time to the music almost perfectly.

On being questioned afterwards by their teacher, who was present at the experiment, as to their individual experiences, Flora Campbell says that when she put her fingers into the glasses, she not only felt the vibrations, but heard the music; but that when she took them out she heard nothing.

Annie Kerr—born deaf, cannot hear loud shouting, can hear large bell slightly—says she could feel the vibrations and hear the music when she put her fingers into the glasses, but not when she took them out. She thinks it was like piano music. She can hear the piano when standing close beside it.

David Fyfe—age 14, born deaf, 5 deaf in the family, can hear loud sounds—says he felt the vibrations, but did not hear anything.

William McCandless, age 12, born deaf, says he felt the vibrations, but did not hear anything.

Flora Campbell, one of the pupils named in the above communication, has written the following description of her experience :

When I put my fingers into the glasses, I felt the instrument beating a tune. It went up from my fingers to my ears, and it sounded just like the music I heard before I became deaf. I could not hear the music when I took my fingers out of the glasses. I heard the last tune plainer than the others. It sounded like a bugle. I think I could hear if anyone spoke loudly into the instrument.

Deaf Poets.—The London *Ephphatha* for December last contains a biographical sketch and portrait of Miss Helen Marion Burnside, an English lady, who lost her hearing at the age of twelve from scarlet fever, and has published many lyrics and other poems in magazines and books. Over 6,000 of her verses have been printed on cards, and 150 of her songs have been set to music. She also writes stories for children, and for nine years was designer to the Royal School of Art Needlework, for which she still occasionally paints vellum-bound books. She obtained a diploma for her skill in this branch of art from the World's Columbian Exposition.

Mr. Hugh R. Dinwoodie, a pupil of the Northern New York Institution, has contributed many pieces of high poetic promise to the *Mentor*, which is published at that Institution.

Gallaudet Day.—The observance of the birthday of Thomas Hopkins Gallaudet by the deaf and their friends is becoming more general from year to year throughout the United States. In almost all of our schools and in most of our large cities the day was appropriately celebrated on the tenth of December last.

In Jacksonville, Illinois, the day was made the occasion of a "Recognition Service" of a new undenominational church for the deaf under the ministry of the Rev. Frank Read, who is also pastor of similar churches in St. Louis, Missouri, and Davenport, Iowa, where he preaches on alternate Sundays

during the summer months and occasionally during the rest of the year. The pastors of the local Presbyterian, Christian, Methodist, Baptist, and Congregational churches, and the President of Illinois College, took part in the council which extended the right hand of fellowship to the new organization and conducted the service.

Church Work in New York.—We are indebted to the Rev. Dr. Thomas Gallaudet for the following summary of the Twenty-fourth Annual Report of the Church Mission to Deaf-Mutes, which was read at its Anniversary Service held in the Church of the Incarnation, New York, on the 20th of December last:

The Society was incorporated in 1872 to promote the temporal and spiritual welfare of adult deaf-mutes.

Its missionaries hold Sunday sign-services at eight different places in the Dioceses of New York, Long Island, Newark, and Connecticut. They have been instrumental in bringing many deaf-mutes into pastoral relations. They are obliged to spend several hundred dollars every year in aid of destitute deaf-mutes. To pay the moderate salaries of the missionaries, to minister to the sick and needy deaf-mutes, and to meet other general expenses, the Society needs an income of \$7,500 a year. The New York Treasurer reported a balance of \$136.47 October 1, 1895: receipts, \$5,370.94; expenses, \$5,467.48; balance October 1, 1896, \$39.93.

The Brooklyn Treasurer reported \$1,625.23 received and expended. So there was a deficiency of \$503.38.

One of the most important departments of the Society's work is "The Gallaudet Home for Deaf-Mutes," situated on a farm by the Hudson river, between New Hamburg and Poughkeepsie. The estimated value of its property is \$62,000, with an endowment of \$14,203. It carries a mortgage of \$7,500, which it is very desirable should be paid off. October 1, 1895, the debts on current expenses were \$978.31, and the bills of the year were \$6,332.42, making in all \$7,310.73. The income was \$6,473.74, leaving October 1, 1896, a debt of \$836.89.

There are twenty-five trustees to manage the affairs of this important Society, the Bishop of New York being *ex officio* the president of the board.

The Ohio Home for the Aged and Infirm.—The Home for the Aged and Infirm Deaf at Central College, Ohio, was formally opened on the 12th of December last with addresses from Messrs. Robert Patterson, R. P. McGregor, Augustus

Greener, J. W. Jones, J. P. Byers, the Rev. Dr. Watt, Mrs. E. A. Zell, and Gen. G. M. Ziegler. The Home is owned and controlled by the Alumni Association of the Ohio Institution, for in Ohio, as Mr. McGregor said in his address, "instead of waiting for others to take the initiative the deaf of the State took it themselves." They were fortunate in being able to obtain suitable grounds and building at a very low price, and the Home enters upon its benevolent work entirely free from debt.

Publications.—Since the publication of the last number of the *Annals*, we have received the following publications :

FERRERI, G. Il Sordo-Muto e la sua Educazione. Vol. III. Storia. [The Deaf-Mute and his Education. Vol. III. History.] Siena, 1896. 12mo, pp. 439. [The first and second volumes of this valuable work, relating, respectively, to Pedagogy and Didactics, have already been noticed in the *Annals*, xl, 238, and xli, 116.]

Reports of Schools, printed in 1896: California, Columbia, Groningen (Netherlands), Horace Mann, Illinois, Kansas, Sarah Fuller, Venersborg (Sweden), Virginia.

Report of the Pennsylvania Diocesan Commission on Church Work (Rev. J. M. Koehler), Philadelphia, 1896.

Report of the College of Teachers of the Deaf and Dumb, London, 1896.

Another Periodical.—The publication of another independent periodical for the deaf, *The Southern Deaf-Mute Journal*, was begun in November last. It appears monthly, and "is intended to fill the long-felt want of a journal for the deaf-mutes of the South." It is neatly printed and judiciously edited. The proprietor is Mr. Joe G. Bradley, the editor Mr. L. T. Rogers, the place of publication Hillsboro, Texas, and the subscription price 50 cents a year.



Thomas Arnold

AMERICAN ANNALS OF THE DEAF.

VOL. XLII, No. 2.

FEBRUARY, 1897.

AN IDEAL SCHOOL FOR THE DEAF.

THE composite pen picture which I shall attempt to produce in this article is to be a blending of many experiences.

It will be affected in some degree by the knowledge gained of the character, inclinations, and capacity of deaf children when, as practically one of their own number, between the ages of fourteen and twenty, I became thoroughly familiar with their language, and was given an insight into their inmost thoughts seldom accorded to their superiors, and especially to their teachers.

Traces will be found in the picture of the practical experiences of the school-room, where elation at success and discouragement over failure have often followed each other in quick succession. There will come up in my mind as I proceed the memory of a variety of pupils. There will stand out in bold relief the bright ones who almost taught themselves, the medium class who saw to it that the teacher earned his salary, and the yet smaller number who, despite the most indefatigable industry, unflagging zeal, and persistent application of the best methods I could invent or appropriate, came, saw, and went, but never conquered.

The picture may show evidences of the years spent in supervising the work of others, and of communion with

some of those rare spirits the burden of whose thoughts was, "Wo is me if I fail to do my full duty; wo is me if I fall short of the sanction of my own conscience, however much my praise may be heralded by the unthinking multitude."

The whole will doubtless be colored by observation of the work in other institutions, and especially by a recent visit among the schools of the eastern part of the country—schools that are now and always have been independent both as regards support and political interference, and which have therefore been able to go steadily forward in the evolution of their systems of instruction, encouraged by the assurance that whatever, after mature deliberation, was fixed upon as the policy of the school was sure to be permanent until the same authorities decided upon something better.

Without any further preliminary remarks I will now proceed to draw the Ideal School, reserving the right, however, to stop now and then and chat awhile about my reasons for putting in a line here or a bit of color there.

A school for the deaf should be in three divisions, which, adopting the Philadelphia terms, we will name The Primary Oral, The Advanced Oral, and The Manual Department. The necessity for this division will appear later.

The Convention of Instructors of the Deaf in the California meeting declared most emphatically that every deaf child should have the opportunity to learn lip-reading and speech, and every Convention since, if my memory serves me rightly, has reiterated the sentiment. I think the Convention was honest, and the individual members of it have, in most cases, given increased attention to this branch of the education of the deaf. Very many, however, like myself, have labored under a misapprehension. They and I have thought that pupils might be taught the ordinary branches by signs, spelling,

and writing, thus advancing more rapidly than by oral teaching, and still might, with an hour or so of oral work per day under a competent teacher, become as good lip-readers and speakers as the average of pupils in the exclusively oral schools.

I am convinced now, however, that if the speech and lip-reading habit is to be formed, it can never be formed in that way. I have known it to be tried faithfully under very favorable auspices and have never yet seen a congenitally deaf child taught in this manner who could be induced to use speech if he could possibly avoid it. There are two bright girls whom I have in mind now—girls who can talk very creditably—with whom persuasion is always necessary to induce them to make use of their vocal organs. It seems they would rather argue an hour to prove that they cannot talk than attempt to speak a single sentence, even though it be to an intimate friend.

Now, in my opinion, if we are ever to succeed in teaching speech to the deaf, we must do so by forming the habit in the first years of their school life, while they are still unconscious of criticism and untrained in any easier mode of communication. This, then, is at once the reason why there should be a primary oral department and why such a department should be entirely separate from the others.

There are some beginners who are manifestly so incapable of being instructed by the oral method that it would seem hardly necessary to give them a test. Still even these should not be slighted, as it sometimes happens that the mind of a child who has been badly neglected at home opens up wonderfully under instruction.

The years to be spent in this primary oral department should probably be about four. This does not imply, however, that every pupil should remain so long. If at the end of the first, second, or third year it becomes evident that a child is making little or no progress in lip-

reading and speech, he should be promptly transferred to the manual department. This may have to be done against the earnest protest of the oral teacher, who, if her training has been in a pure oral school (and that is the kind of teachers that should be employed in this department), cannot bring herself, at first, to admit that anything good can come out of the Nazareth of signs and spelling. As time goes on, however, and she sees those with whom she could do very little by speech developing more rapidly by the plainer and more direct methods of manual teaching, her respect for those methods will increase. There may even come a time when she, herself, will suggest the transfer of misfits from the oral to the manual department.

Arrived at the end of the fourth year, there should be a rigid examination of the pupils as to their attainment in speech and lip-reading. This should be conducted not by the teachers, who are so accustomed to hearing imperfect speech that they can interpret the veriest jargon, but by a large committee of educated ladies and gentlemen—teachers in the public schools, if you please. Members of the board of trustees of the school should also be present, participating in the examination, so that there might be no appeal from the decision of the examining committee.

The test should be to require the pupils to read aloud isolated sentences of such language as they have learned, the examiners marking them strictly according to the number of sentences that are intelligible. These sentences should not be known beforehand by those members of the committee who are to do the marking. The pupils should also be tested in a similar way as to lip-reading, though in this case the teacher should dictate the sentences, after they have been selected by the committee, and require the pupils to write them down. The sifting should be very close and no child should be allowed to slip through into

the advanced oral department unless he is fully entitled by his standing to do so. If after four years of training in speech a pupil can understand and be understood only by those intimately associated with the deaf, no more time ought to be used in that direction. His speech, if he continues, will probably never be pleasant, his lip-reading never accurate, and his mental development will necessarily be slower than by signs and spelling. Moreover, he will take the time of other pupils who are capable and whose progress should not be hindered by those who are in the class merely to gratify a whim.

Let us now pass to the necessary qualifications of the teachers in each of the three departments.

In the Primary Oral Department no teacher's education should be below that furnished by a good normal school. Besides this, she should hold a diploma showing sufficient training in oral methods by those who are acknowledged masters in this kind of teaching. The oral work has suffered most in this country at the hands of quacks, who, after a short training, have set themselves up to prey upon a credulous public. I should say that all the teachers in this department should be women, and I should prefer that none of them had ever learned the sign-language. They will need to use natural signs now and then, but can invent gestures of their own.

Passing now to the Advanced Oral and the Manual Departments, I think that fully half of the teachers in these departments should be men. All should have an education equivalent to that furnished by the average college, and each one, in both departments, should be conversant with the sign-language. Those of the oral department should be of tried capability along the line of speech teaching. The teachers in the manual department might largely be thoroughly educated deaf people. I say this advisedly, for while hearing teachers have some manifest advantages over deaf ones, very few of

them, beginning in adult years to learn signs, ever become entirely adept in their use.

Some may think it strange that I prefer to have the teachers in the Advanced Oral Department know signs. My reasons are as follows: First, because it is a well-known fact that we can put ourselves in another's place much more easily if we are familiar with his language. The danger is thus precluded of the teacher's measuring the deaf by normal children and making the common mistake of teaching over their heads.

Secondly, the teacher might often save valuable time if, while ordinarily holding fast to speech and lip-reading, he should, when he met unusually difficult things to explain, now and then interject a few signs.

Thirdly, I think that speech, or even spelling, utterly fails to meet the requirements when the lecturer stands upon the platform and attempts to inculcate great moral truths. A certain amount of morals and ethics may be taught by example; but if the hearing world has settled down to the conviction that it needs, at least once a week, to have some master of oratory stir it to the depths that it may be fired with new resolves and ambitions, I cannot see how the deaf are to secure a well-rounded education if they are to get all their spiritual training through obscure and half-understood spelling or speech.

All other emotions but disgust and anger would be driven out of our hearts if our favorite minister, some Sabbath morning, should proceed to spell out his sermon. That kind of preaching would soon empty the church, and I have no doubt that deaf pupils who have ever known the thrilling pleasure of being addressed in their mother tongue by a master of the sign-language would, if allowed, escape from a spelled sermon by the same kind of a retreat.

But it may be objected that these orally taught pupils do not know signs and hence would not understand the

lecturer. I will readily grant that in a pure oral school, where the matter has been carefully guarded for years, such is unfortunately the case. In any school, however, where signs have ever been used and any opportunity given to hand them down, no lecturer need have any apprehension that his lecture, delivered in signs, will not reach its mark.

It might be well at this point to stop to consider a little more thoroughly the subject of the suppression of signs in schools where they already exist. Is it possible? Is it desirable? The answer to both these questions is, in my opinion, a decided "No." As a fact we find them used fluently by oral pupils in some schools where they are supposed to be supplanted by speech. If these pupils are forbidden to use them (I hope they are not), they are constantly practising deception and must, in so doing, work violence to their moral natures. The better way would be to say to such children, "It is to your interest to discard signs at the earliest practical moment. Use them to younger children who do not understand spelling or speech and in expressing ideas for which you have not the language. Consider it a shame, however, to use signs if you can make yourself understood by speech or spelling." This policy adhered to persistently will, I think, be more promotive of speech and spelling than the repressive method and will have the advantage of removing all temptation to the surreptitious and therefore wicked use of signs.

After all, it is a question in my mind whether there is any especial advantage to deaf children in conversing with deaf children in speech. It is probable that the imperfections of lip movement which are thus brought constantly before them are more of a hindrance than a help. This, however, need worry no one. So far as my observation goes, the children in pure oral schools have very little to say to one another, which is quite an unnatural state

of affairs. Children usually bubble over with speech, and much of their education is obtained either by hearing others talk or by giving expression to their ideas and having them corrected by their play-fellows who are older and wiser. I would have it so among the deaf. It is legitimate to use repressive measures, if necessary, in the school-room, but I think it hardly pays to use them outside.

As has been noticed, I should insist strenuously upon every teacher in the manual department having a thorough knowledge of the use of signs. I know that some of the leading educators of the deaf at the present day have discarded signs in the school-rooms, and are insisting that the "pure English method" should everywhere be adopted. Nevertheless, I do not hesitate to affirm, and think I could easily prove, that the object sought—a better use of English—does not result. Pupils who, we will say, for six years of their pupilage have been taught by signs, spelling, and writing, and after that by a gradually decreasing use of signs and correspondingly increasing use of spelling and writing, will, at graduation, have fully as good a command of language as the "pure English method" pupils, and a much broader mental horizon.

There are those who argue that this is the natural way to learn a language and they point to the hearing child as a proof of their theory. They seem to forget several things. First, that the hearing child gets many ideas before it attempts to express one, while the deaf child is asked to get his idea and express it simultaneously; second, that the hearing child gets its ideas through the ear assisted by the eye *in watching motions*, while the deaf child must depend upon the eye alone; third, that the hearing child has dozens of teachers through all the waking hours of the day against the deaf child's one teacher with his five hours a day divided among ten or twelve pupils; fourth, that the hearing child in saying,

for instance, "I want an apple," uses *five* sounds and a deaf child *twelve* letters. It is very evident, then, that what may be perfectly natural to a hearing child may be entirely unnatural to a deaf one. If the advocates of exclusive spelling would only insist upon its use with the older classes, say the last five years of the pupil's school life, they would be in harmony with the practice of some of the best schools in the country, and, we feel sure, would realize better results.

In what has been said about spelling, I have had in mind average deaf children. How much more is it true of those sifted out from the mass as being incapable of oral instruction. Many of these poor children need every possible stimulus to awake their sluggish minds to action. Pictures, graphic signs—everything that will reach them, should be brought into use. Exclusive spelling is hardly more adapted as a means of instruction to them than is a pen-knife as a weapon of defence against the wild beasts of the forest. Some of these will never learn more than the simplest parts of language and arithmetic, and yet by the use of signs they may be instructed in their moral and civic duties and may have many of the mysteries of life cleared away. Who shall say that such children have no rights—that they are but "dumb, driven cattle," and must not expect to be considered in plans of education? Surely no one can say this who has sympathetically watched one of these darkened minds groping for the light and has assisted him out of his desperate condition into one of comparative intelligence.

I will not extend the article to take in other features of "an ideal school." There should, of course, be kind, sympathetic people in every department of the school—people who love children and who find it no effort to place themselves *in loco parentis*. There should be as near an approach to the most approved family life as possible, in which alternating work and play make life a pleasure instead of a drudge.

There should be a variety of trades taught, at least half as much time being spent in the shops as in the school-room. The public judges of our schools by the ability of the graduates to earn a living, and that school falls far short of its duty which receives its pupils dependent and sends them out in the same condition.

Whether there should be post-graduate courses in the State schools is a debatable question, especially as the College stands ready to furnish higher education to all who are prepared for it. Additional time, however, should surely be granted to all who desire to perfect themselves in their trades.

In closing the article, I realize that ideals are hardly ever reached, and that the difficulties in the way of all coming to the same conclusion as regards the instruction of the deaf are almost insurmountable. Some instructors are willing to plod along in the same old way, it being easier to do so than to make experiments; some are hampered in the matter of support, and must run their schools in the most economical method possible or close altogether. Others have theories to prove, and are bound to prove them, whether they do the best for the deaf or not; while others still, having committed themselves to some particular policy, are too proud, though now convinced to the contrary, to acknowledge the error of their position. Some, though eager to advance the interests of the deaf, are honestly hesitating because they fear that the time spent upon speech with average pupils would not bring fruit enough to justify the loss in other directions. Many are moving, and quite respectable oral departments exist in a considerable number of the schools.

As time goes on, there will be great changes. The oral method will continue to grow till it reaches its maximum point—a point, in my opinion, far below that marked out for it by its sanguine friends, one of whom, in a recent article in the *Century*, predicts that all the deaf in this country will finally be taught by speech.

The sign-language will renew its youth, like the eagle. It will be found to be indispensable to a large number of the deaf who, if ever educated at all, must be educated by the aid of gestures.

When, after much swinging of the pendulum back and forth, it finally settles to a permanent position, I have little doubt that the final consensus of opinion will point to a school arranged substantially like the one described in this article.

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THE THIRD YEAR'S WORK.—II.*

II. NUMBER.

The number work of this year should consist very largely of practice on what has been already taught, and very gradual advances in the size of the numbers used. A great deal of time should be spent on addition. Remember that addition to be of any use must be both rapid and accurate, and that accuracy must be secured anyway. Introduce the character 0, and have your pupils do some work with it. They may, perhaps, use it as though it meant one. Teach that its use is only to keep the other figures in place. If necessary, fall back on your visible illustrations to explain its use.

Give a great many written problems, and have these worked out on the slate and the process explained. For example:

A boy spent three cents for candy, two cents for a pencil, and six cents for a copy book; how much did he spend in all?

* Continued from the January number of the *Annals*, page 16.

He spent 3 cents for candy.

2 " " a pencil.

6 " " a copy book.

11 " in all.

He spent eleven cents in all.

If you find examples that they cannot work in this way, go back to the old plan of acting them out and using counters. You must not be discouraged if you have to do this much oftener than you think you ought to.

Review the notation you have taught them, having them show toothpicks for such numbers as 73, 48, 37, etc., showing bundles of ten each for the first figure, and single ones for the second. You need not continue these exercises a single moment after you are sure that all your pupils fully realize that the first figure in such numbers always means tens.

After your pupils acquire considerable facility in the addition of three or four numbers, make the principal part of your drill in addition in long columns, of from ten to thirty or even more figures. Teach them to do the work in this way :

	1	5
5	4	4
8	3	10
8	0	7
15	7	7
10	5	10
4	4	5
12	8	11
11	9	13
2	1	4
5	3	
	<hr style="width: 10%; margin-left: 0;"/>	
	45	

Here the middle column is the example given. The column on the right is the pupil's work in adding up this column, and that on the left is his work in adding it down. Always make them add both ways. The combinations are entirely different, and the amount of practice obtained is twice that from a single addition, and the pupil finds his own mistakes.

In this example the pupil said, or thought: 3, 1, 4; and wrote 4 opposite 1. Then 4, 9, 13; writing 13 opposite 9. Then 3 (not 13), 8, 11; writing 11. Then 1, 4, 5; and so on. When he finishes he takes his last single figure, 5, and puts it at the bottom. He then counts his tens, and puts them at the left. The column on the left is obtained in exactly the same way, except that the pupil begins at the top instead of at the bottom. Of course the two results prove each other.

Explain one or two of these examples with toothpicks. Lay them out on your table in piles of 3, 1, 9, 8, etc. Begin at the 3 and take them up; then take the 1. Show that you have four picks, and show the 4 in the operation. Take the nine, and show that you have thirteen, pointing to the 13. Slip a rubber over ten of them, and lay them down, and show that you have three left, the same as the number 3 that you use in going on from 13. Take the 8; show that you have 11; bundle ten; and go on in the same way to the end. Show the five picks that you have, and pick up the four bundles, pointing to the four tens you have set down.

Let your pupils work all their examples in this way for some time, until you are sure they understand the process thoroughly. After that you can shorten the work by setting down figures in the side columns only when the addition amounts to ten or more, and the last figure, as:—

	1	5
	4	
	3	10
	0	
15	7	
10	5	10
	4	
12	8	11
11	9	13
	1	
5	3	
	—	
	45	

After practice in this way for a while, you may allow them to simply make a mark for each ten as they come to it. As soon as they can do that, let them adopt the method which I have found to be used by many deaf persons who add well. Keep the units on the fingers of the right hand, and count the tens, as they come, on the left.

Children trained in this way will "carry" almost instinctively when they begin to add two or more columns, and will never have any trouble about it. They will also learn to add long columns as accurately and rapidly as they do short ones; and even if, at first, they do make mistakes, their work has such a written record that the teacher can easily find where and how the mistake was made.

When your class has attained considerable rapidity and accuracy in adding single columns by this method and you wish to teach "carrying," or the method of adding two or more columns, set down a pretty long example, much longer than this sample:

<i>a.</i>	<i>b.</i>	<i>c.</i>
24	10	4 4
48	16 12	12 8
72	8 4	8 15
96	10	11 14
<hr/>		
240		

In this example column *a* is the example given ; *b* is the addition, up and down, of the unit column, and *c* of the tens.

To begin, ask what the figure 2 in 24 stands for, and all the figures in that column. Ask what the figure 4, and the other figures in that column, stand for. Add the unit column up and down as shown at *b*. Write down at one side the result, 20. Ask what the 0 stands for. Write it under the column just added. Ask what the 2 means. Of course they know and will tell you. Ask if the 2 represents the same kind of tens as those shown in the column of tens, and propose to count or add it in with them. Start the operation of adding the second column by saying 2, 9, 11, etc.

Your pupils will probably understand this and accept it as a matter of course, and there will be no need of proving it by the operation of laying toothpicks ; though if you have a large number of these made up into bundles of ten, or if you divide the example among your pupils by telling each one to gather and bring you the toothpicks for a different number given in the example, which they can easily do if you have practised them in laying out the toothpicks for such numbers, it will not take very long. Of course, in your explanation, you will make bundles of ten wherever the example requires it.

The extension of this method to three or more columns is so obvious as to need no explanation.

After you have laid aside the practice of writing the result of each step, accustom your pupils to writing on one

side the sum of each column, and to then write the unit figure where it belongs.

I should never try to teach the deaf to add as we do, by repeating at each step the total amount of the whole addition. It is just as logical for them to think "7 tens and 4," "11 tens and 9," as to think "seventy-four" or "a hundred and nineteen." They seem to have no trouble, or very little trouble, in keeping count of the tens on the left hand, and the units on the right, and afterwards setting down the results where they belong—opposite the hand that counted them. Practice in this way will make your children rapid and accurate in addition, and a long column of figures will not take all the courage out of them as soon as they see it.

Before leaving addition, give some examples like this :

593468

2

27

3895

4

Some pupils are at first greatly puzzled by such. Of course a word or two will make everything all right.

The practice work on subtraction should take the same general form as that on addition. Mental problems may be spelled to them, and in this exercise I should have "head and foot" in the class, and only allow a moderate time for the solution of each problem. Mix your problems in addition and subtraction, but do not, as yet, give problems involving two steps for mental solution. Such problems, however, should form part of the written work of the class, and if not readily solved should be acted out and explained by counters.

To teach "borrowing," as it is so often called, write :

"From 84 take 48.

84

48

Ask what each figure means. Have a pupil bring you eight bundles of toothpicks and four loose ones. Tell them the eight bundles are represented by the 8, and the four loose ones by the 4, in 84. Place these in plain sight of the whole class, and tell them that you are going to take away from this pile 48 toothpicks, and wish to know how many will be left. Call attention to the example written on the slate. The 84 is the pile of toothpicks, there on the table. How many bundles and how many loose toothpicks are represented by 48? Tell some one to take the eight loose toothpicks that you want and put them by themselves. As there are only four loose toothpicks, ask what is to be done. Suggest that one of the eight bundles be broken open. Ask how many whole bundles are left. Make a mark—any mark, a figure 1, a cross-mark, a check-mark, anything—over the 8. Tell them you do this so that you will be sure to remember that it is not eight any longer, but only seven. “How many loose toothpicks have we now, since we have taken a whole bundle in addition to what we had?” “How many will be left, after we take the eight that we want?” Let the pupil you called on take the eight and put them by themselves somewhere. Show that there are six left. Write down the figure 6, and put the six toothpicks back where you had the eighty-four. Ask how we shall take the four bundles that we need to complete the forty-eight, and let some one take them, and put them with the eight loose toothpicks. Ask what the mark you made over the 8 means, and how many four from seven leaves. Write the 3 under the 4. Point to 36 and ask how many bundles and how many loose ones it represents. Appoint a committee of pupils to see if there are not three bundles and six loose ones where the original eighty-four were; and, also, to see if the number we have taken away is really forty-eight.

When a little farther advanced you can illustrate these problems in this way :

From 92 take 69.

Count out ninety-two toothpicks, the tens, of course, in bundles, and put them in a box, or somewhere out of sight. Ask questions as to the meaning of the figures, and solve the problem thus :

$$\begin{array}{r} 92 \\ 69 \\ \hline 23 \end{array}$$

"As we cannot take 9 from 2, we take a ten, and put a mark over the 9 to show that there are only eight tens left. Then we have ten and two, or twelve. We take away the nine and there are three left. Set down the 3. Now we take six tens from the eight tens that we have left of the 9, and we have two left. Set down 2. We now have 23."

Then you yourself make the subtraction, from the unseen ninety-two, and let the pupils see that there really are twenty-three left.

Practise on illustrating in this way often, and as far as possible, after the first example, make the pupils do all the work, explanation, and everything else.

Never "borrow" and "pay back" by making a lower figure one larger. It amounts, of course, to the same thing, but is harder to explain ; and if you let your class know both methods, some of them will use both on the same figure. If you prefer the "pay back" method, do not show the one explained here.

In multiplication give simple mental problems, such as :

"One sheep costs two dollars. What do five sheep cost?"

"One orange is worth three cents. What will four oranges cost?"

In written problems, you may have two or more steps, combining multiplication with addition and subtraction. Have the complete solution of these problems written out,

The exercises in division should be of the same kind. Confine yourself to one step in mental problems, but be more ambitious in written ones. Reserve until next year operations in multiplication and division which require carrying.

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[TO BE CONTINUED.]

PREPARATION OF THE ORGANS OF SPEECH IN THE YOUNG DEAF-MUTE.*

THE necessity of preparing the organs of speech in the young deaf-mute is to-day a fact recognized by all teachers of articulation. Our pupils have untrained organs on coming to us, as they have never used articulate language ; it is therefore indispensable to subject them to a series of exercises to make the muscles of the jaws and lips flexible and to give agility to the tongue.

Among our annual recruits we frequently meet with special defects of the lips, cheeks, palate, and uvula. Their tongues, having performed only the function of mastication, are incapable of executing with the least agility the movements of articulation. These defects are not surprising when we consider that the tongues of hearing children are unruly when learning to speak, and acquire with difficulty the suppleness and flexibility necessary to the clear pronunciation of words. And yet the tongue

* Translated and abridged for the *Annals* by Miss AGATHA M. TIEGEL, Instructor in the Minnesota School, from a treatise entitled *De la Préparation des Organes de la Parole chez le Jeune Sourd-Muet*, by Mr. AUGUSTE BOYER, Instructor in the National Institution, Paris (Georges Carré, 1894, 8vo, pp. 30). This treatise also appeared in the *Revue Internationale de l'Enseignement des Sourds-Muets* for 1894, and an Italian translation has been published by Mr. Ernesto Scuri, Director of the Royal Institution at Naples.—E. A. F.

plays a considerable part in the pronunciation of most of the consonants.

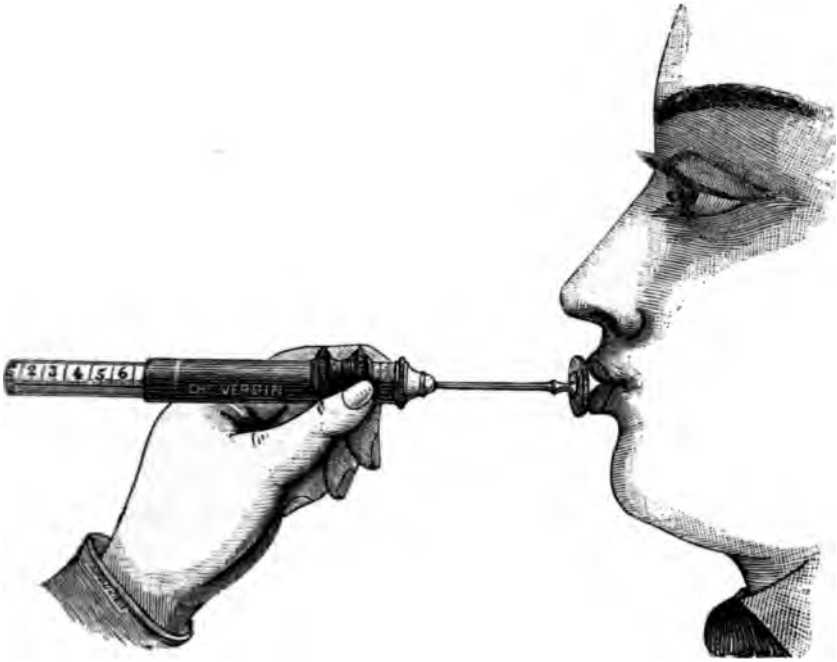
Dr. Féré, physician at the Bicêtre hospital, has made some important researches concerning the influence of muscular exercise upon the energy, the rapidity, and the skill of the voluntary movements of the tongue and lips.

Concerning the tongue, Dr. Féré proves that the weakness and slowness of its movements spring as often from congenital defects of utterance as from acquired ones. He adds that they are very marked among stutterers and deaf-mutes. "Despite the studies of Sauvages and Itard, the troubles with the mobility of the tongue have not attracted sufficient attention. They merit a place beside those of the mobility of the thorax." Teachers of articulation know that experience daily confirms this assertion in the case of deaf-mutes.

The difficulty our pupils have in the pronunciation of certain elements, such as t, d, n, l, r, and especially in the combination of sounds, syllables, and words, and their monotonous, tedious, and unrhythmic speech, are caused in great part by the lack of energy and quickness in the movement of the organs of articulation, particularly of the tongue.

To remedy these defects Dr. Féré suggests the use of exercises to develop the energy and rapidity of the simplest movements of flexion and extension. "It is the surest means of gradually increasing the force and skill of the more complex movements. The feebleness of tongue of the deaf-mute or stutterer is not limited to the complex movements of articulation; it shows itself in the simplest movements, and these should be brought to perfection by exercises of force and rapidity, as is done in ordinary gymnastics." This statement is proved by studying the energy and rapidity of the common movements of propulsion, laterality, etc. The energy of the movements

can be measured by the resistance to the pressure of the glosso-dynamometer.



DR. FÉRE'S GLOSSO-DYNAMOMETER.*

The rapidity can be determined by measuring the time of reaction, or by counting movements repeated as rapidly as possible in a given time.

Dr. Féré's measurements with this dynamometer and d'Arsonval's chronometer enabled him to ascertain that among stutterers and deaf-mutes the *energy* of the movements of the tongue was represented by 200 and 150 grammes, and the *time of reaction* of the same organ mak-

* This is a little dynamometer with a spiral spring, which one holds in the hand and applies to the point of the tongue from in front backward, asking the person to resist the pressure as much as possible. The apparatus is so graduated as to indicate approximately, in grammes, the degree of this resistance measured by the elasticity of the spring.

ing a movement of propulsion forward by 39 and 54 hundredths of a second ; while the average for normal subjects is from 800 to 500 grammes for energy, and from 10 to 18 hundredths of a second for rapidity. These observations prove the feebleness and slowness of movements of the tongue which are not especially adapted to articulation.

Dr. Féré has ascertained that among stutterers and deaf-mutes the impotence of the lips is quite as evident as that of the tongue. The movement of the lips that best favors the dynamometric investigation is that of propulsion forward. Dr. Féré used for measuring the movements of the lips an instrument similar to that which served him for the tongue, but with the addition of a broader end piece, so that a surface of 3 centimetres in diameter was applied upon the cutaneous surface of the lips in repose ; as with the tongue, the energy of the propulsion of the lips was indicated, in grammes, by the direct pressure of the spring.

With a deaf-mute the force of the propulsion of the lips decreased to 150 grammes, and the time of reaction, obtained by d'Arsonval's chronometer, was lengthened to 40 hundredths of a second. This time in five normal subjects was from 12 to 15 hundredths of a second.

These investigations were made by Dr. Féré only upon inmates of the Bicêtre hospital, adult deaf-mutes who had not been taught to speak. New experiments were therefore made upon a number of pupils at the National Institution for Deaf-Mutes. Dr. Féré has stated the results in an article from which the following is borrowed :

I. The first experiments were upon the resistance of the tongue to pressure directed from in front backwards, measured by the glosso-dynamometer ; and upon the time of reaction of the tongue making a movement of propulsion forward, measured by d'Arsonval's chronometer. The results were as follows, the figures representing the average of ten experiments upon each subject :

1. *Deaf-mutes from 8 to 10 years old, who have never spoken nor been taught articulation.*

a. The resistance of the tongue with 24 subjects gives an average of 216 grammes.

b. The time of reaction with 3 subjects is an average of 0''.28.

2. *Deaf-mutes from 8 to 10 years old, having had one year of articulation (selected pupils).*

a. The resistance of the tongue with 8 subjects is an average of 425 grammes.

b. The time of reaction with 7 subjects is an average of 0''.20.

3. *Deaf-mutes from 10 to 13 years old, having had two years of articulation, but speaking poorly.*

a. The resistance with 8 subjects is an average of 425 grammes.

b. The time of reaction with 6 subjects is an average of 0''.25.

4. *Deaf-mutes from 13 to 15 years old, having had four years of articulation, and speaking fluently and intelligibly.*

a. The resistance of the tongue with 5 subjects is an average of 605 grammes.

b. The time of reaction with 3 subjects is an average of 0''.205.

5. *Deaf-mutes from 15 to 18 years old, having had five or six years of articulation, whose pronunciation is defective.*

a. The resistance of the tongue with 7 subjects is an average of 478 grammes.

b. The time of reaction measured upon 4 subjects is an average of 0''.205.

6. *Deaf-mutes from 15 to 18 years old, having had five or six years of articulation, and speaking fluently and intelligibly.*

a. The resistance with 4 subjects is an average of 737 grammes.

b. The time of reaction with 4 subjects is an average of 0''.15.

These figures prove that the energy and rapidity of movements not adapted to articulation show a remarkable deficit among uneducated deaf-mutes. The parallel development of the rapidity of adapted movements and of the quickness and energy of non-adapted movements seems to indicate that exercises to develop the force and rapidity of non-adapted movements may be useful in the education of the movements of articulation.

II. The examination of the energy and rapidity of the propulsion of the lips was made, in the way already indicated, upon four groups of subjects chosen from among those already examined for the tongue :

1 *Deaf-mutes from 8 to 10 years old, to whom articulation has not yet been taught.*

a. The energy of the propulsion of the lips with 4 subjects gives an average of 462 grammes.

b. The time of reaction of the same movement with 5 subjects is an average of 0".208.

2. *Deaf-mutes from 10 to 13 years old, having had two years of articulation.*

a. The energy of propulsion with 4 subjects is an average of 487 grammes.

b. The time of reaction with 4 subjects is an average of 0".225.

3. *Deaf-mutes from 15 to 18 years old, having had five or six years of articulation, but with defective pronunciation.*

a. The energy with 4 subjects is an average of 506 grammes.

b. The time of reaction with 4 subjects is an average of 0".212.

4. *Deaf-mutes from 15 to 18 years old, having had five or six years of articulation, and speaking well.*

a. The energy with three subjects is an average of 525 grammes.

b. The time of reaction with the same is an average of 0".173.

Investigations of the lips and tongue give similar results ; it is only the figure that expresses the time of reaction of the first group in the second series that forms an exception to the rule.

These experiments show that the energy and quickness of unadapted movements of the tongue and lips are less among deaf-mutes than among hearing and speaking children, and especially less with young deaf-mutes to whom articulation has not yet been taught.

When some time ago we took direction of a class in articulation, we subjected our young pupils, previous to and parallel with instruction in articulation, to special gymnastics of the tongue and lips, having first measured the energy and quickness of the movements, and repeating this measure from month to month. In measuring the quickness, instead of considering the time of reaction, we ascertained the number of movements of propulsion executed by the tongue or lips in a given time.

Before any exercises, the measure of the energy and quickness gave the following figures :

Deaf-mutes without speech, whose organs have not yet been exercised.

Reference number.	Age Nov. 1, 1891.	TONGUE.		LIPS.	
		Energy measured in grammes.	Number of movements during 1 minute.	Energy measured in grammes.	Number of movements during 1 minute.
1	11 years.	200	125	300	85
2	9 years.	350	140	300	50
3	9½ years.	400	110	350	45
4	9½ years.	400	95	350	80
5	10 years.	500	180	250	65
6	10½ years.	300	100	300	45
7	10 years.	450	110	350	90

Our special gymnastics were as follows :

1. The Tongue.

1. Moving a ball of ivory in the mouth with the tongue.
2. Resistance of the tongue in the movement of propulsion to pressure directed from in front backwards by an instrument analogous to Dr. Féré's glosso-dynamometer, but of greater dimensions.
3. Exercises of imitation :
 - a. Putting out the tongue and drawing it back quickly.
 - b. Rapidly carrying the point of the tongue to the inner surface of the upper incisors, to the palate, and behind the lower incisors, drawing the tongue as far as possible to the bottom of the mouth.
 - c. Moving the tongue between the lips as rapidly as possible in a lateral direction.
 - d. The same in a vertical direction.
 - e. Pronouncing an infinite number of times, and more and more quickly, the consonants t and d separately.
 - f. The upper lip being pressed upon the upper incisors, striking it repeated blows with the point of the tongue.
 - g. Putting out the tongue, and drawing it back quickly, the point touching the palate and the inner surface of the upper incisors.

h. Causing the point of the tongue to vibrate, first, by uniting the tongue with the vibration of the lips, then by producing this vibration of the tongue in the interior of the mouth.

2. The Lips.

1. Resistance of the lips in the movement of propulsion to pressure directed from in front backwards by the instrument spoken of above.

2. Exercises of imitation :

a. Showing the teeth by separating the lips horizontally.

b. Rounding the lips in changing the degree of opening of the mouth.

c. Executing the movements *a* and *b* successively and as rapidly as possible.

d. Executing rapidly the movement of propulsion without showing the teeth.

e. Pronouncing an infinite number of times and more and more quickly the consonants *p* and *b* separately.

f. Causing the lips to vibrate.

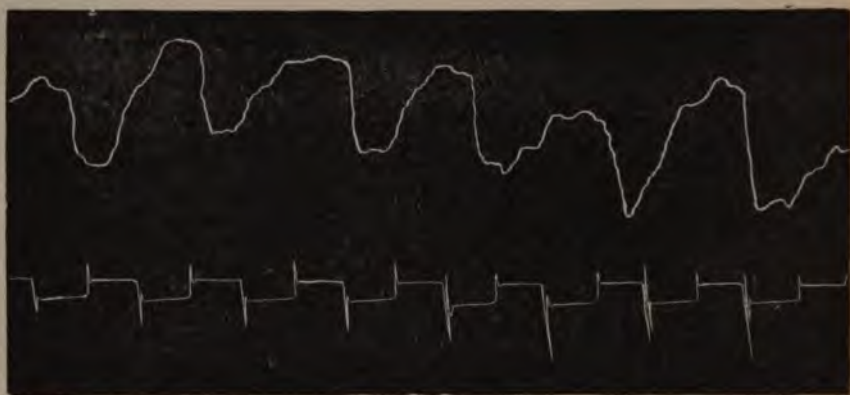
After several months of these special gymnastics, practised before as well as during the teaching of the vowels and consonants, we could see a greater energy and rapidity in the common movements of the tongue and lips, a better aptitude for the movements of articulation, and a greater facility in the union of sounds and syllables. The gain in energy and rapidity can be seen by comparing the preceding table with the one that follows :

Deaf-mutes learning speech, who have practised special gymnastics of the tongue and lips for 5 months.

Reference number.	TONGUE.		LIPS.	
	Energy measured in grammes.	No. of movements during 1 minute.	Energy measured in grammes.	No. of movements during 1 minute.
1.....	1,000	240	500	200
2.....	750	260	525	240
3.....	625	220	575	190
4.....	700	220	525	200
5.....	1,000	260	600	230
6.....	1,000	220	450	180
7.....	900	280	575	200
8.....	1,000	280	600	200

Though it is generally recognized that the young deaf-mute who has not yet learned to speak has a defective respiration, the mechanical phenomena of respiration among our pupils have been too little studied. Dr. Féré entered upon a graphic study of the respiratory movements of the subjects who had been examined for the tongue and lips. In his pneumographic drawings he shows, in regard to respiratory rhythm, that educated deaf-mutes have 18 or 19 respirations a minute, while those who have never had methodical exercises have more superficial movements—22, 24, 25, and even 29 times a minute.

Upon the form of the expiration, he says: "The graphic study of the breathings of deaf-mutes shows us a character that appears constant, but in different degrees according to the education of the respiration; it is the short, quick breathing that the pneumograph inscribes by a staircase curve; that is to say, in a condition of depression of the impelling functions. The following figure represents this curve taken from a subject educated for six years but speaking poorly."



The upper line represents 6 respiratory movements executed in 15 seconds; the lower shows the short, quick breathing of a deaf-mute.

To modify the respiratory movements little by little, and to restore the respiratory rhythm to the normal figure of fifteen or sixteen movements a minute, the young deaf child must be subjected to a series of methodical exercises. Among these we particularly recommend the following :

Instrument.—A metronome or a plumb line suspended from the ceiling and serving as a pendulum.

Exercise.—The metronome or pendulum marking the seconds, breathe in four periods, always through the mouth.

Inhale during the first period.

Exhale during the three others.

The short, quick expiration, the special defect of the breathing of the young deaf child, explains the difficulty he experiences in the emission of the vowels. This defect can be remedied to some extent by leading him to exhale slowly and regularly. We will indicate three exercises we have found beneficial with our pupils :

1. Breathing upon a candle, placed near the mouth, as long as possible without extinguishing it.

2. Causing an ivory ball to run in a groove of a table for a distance shown beforehand.

3. Causing a column of water to descend in a tube or in the spirometer in a given time and with one expiration.

These three exercises tend to remedy this defect, by teaching the deaf-mute to maintain the fixity of the thorax and the gradual retraction of this organ in expiration.

AUGUSTE BOYER,
Instructor in the National Institution, Paris, France.

THE INCORPORATION OF THE CONVENTION.

To the Officers and Members of the Convention of American Instructors of the Deaf.

DEAR FRIENDS: The Standing Executive Committee was "authorized and directed" by a resolution of the last Convention "to prepare and file proper articles of incorporation under the laws of any State or district as it may elect." In view of the national, and even international, character of our association, the Committee concluded that the incorporation of the Convention under a special act of Congress would be most to be desired. Accordingly a bill was drawn up with the sanction of the Committee and presented to the Fifty-fourth Congress early in its first session.

The bill was introduced into the House of Representatives by Hon. Nelson Dingley, of Maine, and referred to the Judiciary Committee. After consideration, it was reported back favorably through Hon. F. H. Gillett, of Massachusetts.

The bill was introduced into the Senate by Hon. James McMillan, of Michigan, and referred to the Committee on the District of Columbia. It was reported back favorably through Hon. Lucien Baker, of Kansas.

No action in either house was reached during the first session of the Fifty-fourth Congress, but early last month Mr. Gillett succeeded in securing its consideration in the House. Hon. D. B. Henderson, of Iowa, chairman of

the Committee on the Judiciary, made an earnest speech in its favor and it passed the House without opposition.

When the House bill reached the Senate, it was allowed, through the courtesy of Vice-President Stevenson, to lie on the table until an auspicious moment came to ask its passage as a substitute for the Senate bill. At a favorable time Senator McMillan, chairman of the Committee on the District of Columbia, moved that this action be taken and spoke in favor of the bill. It passed the Senate without opposition.

Mr. Charles Moore, clerk of the Senate Committee on the District of Columbia, took a most friendly interest in the bill, and did much at several points to facilitate its progress.

As soon as the bill had become an act of Congress, I waited on President Cleveland and gave him the reasons why it was important the Convention should have a national corporate existence. The President showed much interest in the Convention, and, after asking a few questions, assured me the act would have his favorable consideration.

The act is given herewith in full, and a perusal of it will show every one that the Convention is to be congratulated on its very favorable provisions.

Sincerely yours,

E. M. GALLAUDET,
President of the Convention.

GALLAUDET COLLEGE,
Washington, D. C., February 1, 1897.

AN ACT to incorporate the Convention of American Instructors of the Deaf.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,
That Edward M. Gallaudet, of Washington, in the District of Columbia; Francis D. Clarke, of Flint, in the State of Michigan; S. Tefft Walker, of Jacksonville, in the State

of Illinois; James L. Smith, of Faribault, in the State of Minnesota; Sarah Fuller, of Boston, in the State of Massachusetts; David C. Dudley, of Colorado Springs, in the State of Colorado, and John R. Dobyns, of Jackson, in the State of Mississippi, officers and members of the Convention of American Instructors of the Deaf, and their associates and successors be, and they are hereby, incorporated and made a body politic and corporate in the District of Columbia by the name of the "Convention of American Instructors of the Deaf," for the promotion of the education of the deaf on the broadest, most advanced, and practical lines; and by that name it may sue and be sued, plead and be impleaded in any court of law or equity, and may have and use a common seal and change the same at pleasure.

SEC. 2. That the said corporation shall have the power to take and hold personal estate and such real estate as shall be necessary and proper for the promotion of the educational and benevolent purposes of said corporation, which shall not be divided among the members of the corporation, but shall descend to their successors for the promotion of the objects aforesaid.

SEC. 3. That said corporation shall have a constitution and regulations or by-laws, and shall have power to amend the same at pleasure: *Provided*, That such constitution and regulations or by-laws do not conflict with the laws of the United States or of any State.

SEC. 4. That said association may hold its meetings in such places as said incorporators shall determine, and shall report to Congress, through the president of the Columbia Institution for the Deaf and Dumb at Washington, District of Columbia, such portions of its proceedings and transactions as its officers shall deem to be of general public interest and value concerning the education of the deaf.

Approved, January 26, 1897.

AN INQUIRY CONCERNING THE RESULTS OF MARRIAGES OF THE DEAF IN AMERICA.*

CHAPTER VII.

Summary of Statistics and Conclusions.

THE most important of the statistics presented in the preceding chapters, and of the conclusions drawn from them, may be summed up as follows :

AMERICA AND EUROPE.

Marriages of the deaf are more common in America than in Europe. The former pupils of American Schools for the Deaf here recorded as married constitute 23.1 per cent. of the whole number who attended school up to the year 1890, and the actual percentage of the married deaf in America is probably much higher than that. In the countries of Europe from which we have statistics it is only in Denmark that the proportion rises as high as 23 per cent. ; in the other countries it varies from 12 to 7 per cent.† This more frequent marriage of deaf persons in America is probably partly due to the absence of certain restrictions that hamper marriage more or less in most European countries, and partly to the more prosperous circumstances, and consequent greater ability to support a family, of the deaf of this country.

THE PRESENT CENTURY.

The marriages of deaf persons in America have increased at a high rate of progression during the present century. The proportion of the marriages recorded for the first decade to the whole number of marriages during the century is 0.02 per cent. For the third decade it is 0.18 per cent., and in each subsequent decade it increases

* Continued from the January number of the *Annals*, page 33.

† See Introduction, *Annals*, vol. xli, page 25.

until in the ninth decade it is 22.7 per cent.* Making due allowance for the increase in population, and for the fact that the marriages of the later decades are probably more fully recorded than the earlier ones, the high rate of progression indicated is doubtless largely due to the establishment of schools for the deaf. Not only do the opportunities for acquaintance afforded by school life tend to promote marriage, but the effect of education is to bring the deaf into closer relations with society and to increase their ability to marry and support a family.

DEAF AND HEARING PARTNERS.

A large majority of the married deaf have married deaf rather than hearing partners, the proportion of marriages in which both partners were deaf being 72.5 per cent., and of those in which one of the partners was deaf and the other a hearing person 20 per cent.+ This preference of the deaf for one another as partners in marriage has been ascribed to their environment during education, which brings them together in boarding-schools and fosters the use of the sign-language. No doubt this environment has had some influence in promoting their marriage with one another; but that it is not the chief cause is shown by the fact that 77 per cent. of the deaf here recorded who attended day-schools, 78 per cent. of those who attended exclusively oral schools, and 62 per cent. of those who attended no school for the deaf, married deaf partners.‡ The chief cause that leads deaf people to marry one another rather than hearing persons, and one that affects those who have been educated in day and oral schools, and even those who have attended

* See Table I. In the tables of the preceding chapters the percentages are carried out to the third figure of decimals; in this Summary they are generally given with less precision.

† See Table V.

‡ See Tables VI and VII.

no school for the deaf, in only a little less degree than those who have been segregated for the purposes of education and have attended schools not exclusively oral, is the deep feeling of fellowship and sympathy which has its roots in the similarity of condition of all the deaf, under whatever circumstances and by whatever method they have been educated.

PRODUCTIVENESS.

Marriages of deaf persons, one or both of the partners being deaf (taken as a whole, without regard to the character of the deafness), are probably somewhat, but not very much, less productive than ordinary marriages. The proportion of marriages of the deaf without offspring is 14.1 per cent., and the average number of children to each mother who had children is 2.61. In Massachusetts in 1885, the proportion of women without offspring was 17.56 per cent., and the average number of children to each mother who had had children was 4.11.* The actual difference in the average number of children to a mother is doubtless less than these figures would indicate, as the children of the deaf are probably not fully reported and a considerable proportion of their marriages are of recent date.

Marriages in which both of the partners are deaf are somewhat less productive than those in which one of the partners is deaf and the other a hearing person. The proportion of marriages of the former class without offspring is 15 per cent., and the average number of children to each marriage resulting in offspring is 2.5; in the latter class the proportion without offspring is 11 per cent., and the average number of children to each marriage is 2.9.†

Between marriages of the congenitally deaf and those of the adventitiously deaf, there is not much difference in

* See Chapter I, *Annals*, vol. xli, page 83.

† See Tables VIII and IX.

productiveness, but the former are probably slightly less productive. In marriages of the former class, one or both of the partners being congenitally deaf, the proportion without offspring is 15.5 per cent., and the average number of children to each marriage resulting in offspring is 2.72; in marriages of the latter class, one or both of the partners being adventitiously deaf, the proportion without offspring is 14 per cent., and the average number of children to each marriage is 2.47.* The less number of children from marriages of the adventitiously deaf is perhaps due to the fact that the average duration of the marriages of this class recorded was probably less than that of the marriages of the congenitally deaf, as a majority of the earlier pupils of American schools were congenitally deaf, while within recent years a majority of the pupils have been adventitiously deaf.

DEAF OFFSPRING.

(a) One or Both Partners Deaf.

Marriages of deaf persons, one or both of the partners being deaf (taken as a whole, without regard to the character of the deafness), are far more liable to result in deaf offspring than ordinary marriages. The proportion of marriages of deaf persons resulting in deaf offspring is 9.7 per cent., and the proportion of deaf children born therefrom is 8.6 per cent.† Just what proportion of ordinary marriages result in deaf offspring, and what proportion of deaf children are born therefrom, we do not know, but they are probably less than one-tenth of one per cent.

On the other hand, marriages of the deaf are far more likely to result in hearing offspring than in deaf offspring, the proportion of hearing children reported being 75 per cent. and the actual proportion probably considerably higher, while that of deaf children, as above stated, is 8.6 per cent.‡

* See Tables XX and XXII. † See Tables III and IV. ‡ See Table IV.

(b) *Both Partners Deaf, or One Partner Hearing.*

*See Tables X and XI. †See Table XII. ‡See Tables XXIII and XXIV.

to transmit the physical condition that results in deafness; for, if we regard the number of congenitally deaf married persons, we find that the number of deaf children born to every 100 congenitally deaf persons married to congenitally deaf partners (30.8) is not greater than the number born to every 100 congenitally deaf persons married to hearing partners (34.2).^{*} In the majority of cases no intensification of the liability to deaf offspring seems to be caused by the union of two deaf persons.

This conclusion is not, as it might appear at first sight, inconsistent with the general law of heredity that the liability to the hereditary transmission of any characteristic existing in the parent is increased by the union of "like with like;" for, when the deafness of the parent reappears in the offspring, the characteristic transmitted is not deafness, as has been generally assumed by writers who have discussed this subject, but it is some anomaly of the auditory organs or of the nervous system, or the tendency to some disease, of which deafness is but the result or the symptom. Inasmuch as these anomalies and diseases resulting in deafness are many and various, it is probable that in most marriages of deaf persons, and even of congenitally deaf persons, the pathological condition that results in deafness is not the same in one partner that it is in the other, and their marriage therefore is not, from a physiological point of view, a union of "like with like."

On the other hand, where the pathological condition of the two partners is the same, as it probably is in the majority of consanguineous marriages of deaf persons, there is doubtless an intensification of the liability to deaf offspring; but happily such marriages are comparatively rare. The number of them here reported, probably less than the actual number, is 31, which is 0.69 per cent. of the whole number of marriages.[†] The proportion of these 31 marriages that resulted in deaf offspring is 45 per cent.,

^{*} See Table XXXIII.

[†] See Table LXXVI.

and the proportion of deaf children born therefrom is 30 per cent.* The curious circumstance above noted that the percentages of marriages resulting in deaf offspring and of deaf children born therefrom are larger where one of the partners was a hearing person than where both of them were deaf is probably chiefly due to the fact that the proportion of consanguineous marriages reported was much greater where one of the partners was a hearing person (2 per cent.) than where both of them were deaf (0.37 per cent.).†

(c) *Partners Congenitally or Adventitiously Deaf.*

Congenitally deaf persons, whether they are married to one another, to adventitiously deaf, or to hearing partners, are far more liable to have deaf offspring than are adventitiously deaf persons. The proportion of marriages of the former class, one or both of the partners being congenitally deaf, resulting in deaf offspring, is 13 per cent., and the proportion of deaf children born therefrom is 12 per cent.; in marriages of the latter class, one or both of the partners being adventitiously deaf, the proportion resulting in deaf offspring is 5.6 per cent., and the proportion of deaf children born therefrom is 4.2 per cent.‡ The liability to deaf offspring is greatest when both of the partners are congenitally deaf, the proportion of marriages resulting in deaf offspring in such cases being 24.7 per cent., and the proportion of deaf children born therefrom 25.9 per cent.¶

Marriages of adventitiously deaf persons are more liable to result in deaf offspring than ordinary marriages, but when both of the partners are adventitiously deaf or one of them is a hearing person the liability is slight. The proportion of marriages resulting in deaf offspring where both

* See Tables LXXX and LXXXI. ‡ See Tables XXIX and XXX.

† See Table LXXXVIII.

¶ See Tables XXV and XXVI.

partners were adventitiously deaf is 3.5 per cent., and the proportion of deaf children born therefrom is 2.3 per cent. Where adventitiously deaf persons were married to hearing partners the proportion of marriages resulting in deaf offspring is 3.2 per cent., and the proportion of deaf children born therefrom is 2.2 per cent. Where they were married to congenitally deaf partners the proportion of marriages resulting in deaf offspring is 8 per cent., and the proportion of deaf children born therefrom is 6.5 per cent.*

The greater liability to deaf offspring of marriages of the congenitally deaf than of the adventitiously deaf is in accordance with the generally accepted law of heredity that congenital or innate characteristics are far more likely to be transmitted to the offspring than acquired characteristics. When the deafness of adventitiously deaf parents does reappear in the offspring, we may suppose that the physical anomaly or tendency to disease of which deafness was the result was probably congenital in the parent though actual deafness did not appear until some period later in life.

(d) Partners Having Deaf Relatives.

Deaf persons having deaf relatives, however they are married, and hearing persons having deaf relatives and married to deaf partners, are very liable to have deaf offspring. (Probably hearing persons having deaf relatives and married to hearing partners are subject to the same liability, but such cases do not come within the scope of the present Inquiry.) However the marriages of the deaf are classified with respect to the deafness or hearing of one or both of the partners, or with respect to the congenital or adventitious character of the deafness, the percentage of marriages resulting in deaf offspring and the percentage of deaf children born therefrom are almost in-

* See Tables XXVII and XXVIII.

variably highest where both of the partners had deaf relatives, next highest where one of them had deaf relatives and the other had not, and least where neither had deaf relatives; the only exceptions being in a few classes where the totals are too small to be regarded as important.* Taking all the marriages of a year's standing or longer of which the results have been reported, where both of the partners had deaf relatives the proportion of them resulting in deaf offspring is 23.5 per cent., and the proportion of deaf children born therefrom is 20.9 per cent.; where one of the partners had deaf relatives and the other had not, the proportion of marriages resulting in deaf offspring is 6.6 per cent., and the proportion of deaf children born therefrom is 6.4 per cent.; where neither of them had deaf relatives the proportion of marriages resulting in deaf offspring is only 2.3 per cent., and the proportion of deaf children born therefrom 1.2 per cent.† Probably the actual percentages of marriages resulting in deaf offspring and of deaf children born therefrom, where neither of the partners had deaf offspring, are even less than these, for in some cases the statements of the marriage records that neither of the partners had deaf relatives are not well authenticated, and in all of them there is the possibility that there were deaf relatives unknown to the persons who filled out the record blanks. Where neither of the partners has deaf relatives the liability to deaf offspring is very slight, perhaps not greater than in ordinary marriages.

In marriages where both of the partners are congenitally deaf and both have deaf relatives the proportion of them having deaf offspring and the proportion of deaf children born therefrom are very high (28.4 and 30.3 per cent.);‡ but where neither of the partners has deaf relatives, even though both of them are congenitally deaf, the

* See Tables XLII to LXXI, inclusive.

† See Tables LXXII and LXXIII.

‡ See Tables XLII and XLIII.

liability seems to be slight, perhaps not greater than in ordinary marriages. Fourteen marriages of this class are reported, resulting in 24 children.* Of these children one was deaf, but in this case the statement of the marriage record that neither of the partners had deaf relatives is not well authenticated.† If we accept the statement, the proportion of marriages of this class resulting in deaf offspring is 7.1 per cent., and the proportion of deaf children born therefrom is 4.1 per cent.‡ but if we reject it, there remains not a single instance of marriages in which both of the partners were congenitally deaf, and neither had deaf relatives, that resulted in deaf offspring. Though the total number of marriages of this class is not large enough to render the result conclusive, yet, taking them in connection with the 111 other marriages of congenitally deaf persons in which neither of the partners had deaf relatives,‡ we are justified in concluding that, while congenital deafness may be a *prima facie* indication of a liability to deaf offspring, it is not to be accepted as a conclusive evidence of such liability.

The possession of deaf relatives, on the other hand, seems to be a trustworthy indication of a liability to deaf offspring. If a deaf person, whether congenitally or adventitiously deaf, has deaf relatives, that person, however married, is liable to have deaf offspring, the liability being much greater, however, in the case of the congenitally deaf than in that of the adventitiously deaf; and if a deaf person, either with or without deaf relatives, marries a person, whether deaf or hearing, who has deaf relatives,

* See Tables LXII and LXIII. † See Chapter IV, *Annals*, vol. xli, page 307.

‡ See Tables XLIV to LI, inclusive. The proportion of these 111 marriages that resulted in deaf offspring is 4.5 per cent., and the proportion of deaf children born therefrom is 2.4 per cent.; or, if we eliminate one marriage record, the statement of which that neither partner had deaf relatives is not well authenticated, the proportion of marriages resulting in deaf offspring is 3.6 per cent., and the proportion of deaf children born therefrom is 2 per cent.

the marriage is liable to result in deaf offspring. If both partners have deaf relatives, the physical conditions tending to produce deafness, whatever they may be, are liable to be transmitted from both parents, and the probability of deaf offspring is therefore largely increased; but even when only one of the partners has deaf relatives, the liability to deaf offspring is still considerable.

(e) *Partners Consanguineous.*

The marriages of the deaf most liable to result in deaf offspring are those in which the partners are related by consanguinity. Thirty-one such marriages are reported in the marriage records, and of these 14, or 45.1 per cent., resulted in deaf offspring. One hundred children were born from these 31 marriages, and of these 30, or 30 per cent., were deaf.*

The totals of the several classes of relationship, as first cousins, second cousins, etc., and the totals of the several classes of marriage, as of both of the partners deaf, one of the partners deaf and the other hearing, one or both of the partners congenitally or adventitiously deaf, one or both of the partners having other deaf relatives or not, are too small to enable us to form conclusions as to their comparative results; but the large percentage of marriages resulting in deaf offspring, and of deaf children born therefrom, in every one of these classes, indicates that it is exceedingly dangerous for a deaf person to marry a blood relative, no matter what the character or degree of the relationship may be, and no matter whether the relative is deaf or hearing, nor whether the deafness of either or both or neither of the partners is congenital, nor whether either or both or neither of them have other deaf relatives.†

* See Tables LXXVIII and LXXIX.

† See Tables LXXX to LXXXVII, inclusive.

The reason why consanguineous marriages are so much more liable to result in deaf offspring than ordinary marriages of the deaf is, probably, that in such marriages the same condition tending to produce deafness is likely to exist in both of the partners, and, from the union of "like with like," to be transmitted to their offspring with increased intensity.

(e) Summary of Statistics.

The most important of the statistics relating to the several classes of marriages of the deaf, showing the number of marriages of each class of which the results were reported and the number and percentage of each class resulting in deaf offspring, also the number of children born from the marriages of each class, and the number and percentage of them that were deaf, are summed up in the following table.

The fifth and sixth columns of this table, giving the percentage of marriages resulting in deaf offspring and the percentage of deaf children born therefrom, indicate at a glance the comparative liability to deaf offspring of the several classes of marriage. The extremes of liability are found in the two classes last named in the table.

TABLE XCII.

Marriages of the deaf.	NUMBER OF MARRIAGES.		NUMBER OF CHILDREN.		PER-CENTAGE.	
	Total.	Resulting in deaf offspring.	Total.	Deaf.	Marriages resulting in deaf offspring.	Deaf children.
One or both partners deaf.....	3,078	300	6,782	588	9.7	8.6
Both partners deaf.....	2,377	220	5,072	429	9.2	8.4
One partner deaf; the other hearing...	599	75	1,532	151	12.5	9.8
One or both partners congenitally deaf	1,477	194	3,401	413	13.1	12.1
One or both partners adventitiously deaf	2,212	124	4,701	199	5.6	4.2
Both partners congenitally deaf	335	83	779	202	24.7	25.9
One partner congenitally deaf; the other adventitiously deaf.....	814	66	1,820	119	8.1	6.5
Both partners adventitiously deaf.....	845	30	1,720	40	3.5	2.3
One partner congenitally deaf; the other hearing.....	191	28	528	63	14.6	11.9
One partner adventitiously deaf; the other hearing	310	10	713	16	3.2	2.2
Both partners had deaf relatives.....	437	103	1,060	222	23.5	20.9
One partner had deaf relatives; the other had not.....	541	36	1,210	78	6.6	6.4
Neither partner had deaf relatives.....	471	11	1,044	13	2.3	1.2
Both partners congenitally deaf; both had deaf relatives	172	49	429	130	28.4	30.3
Both partners congenitally deaf; one had deaf relatives, the other had not.	49	8	105	21	16.3	20.0
Both partners congenitally deaf; neither had deaf relatives.....	14	1	24	1	7.1	4.1
Both partners adventitiously deaf; both had deaf relatives.....	57	10	114	11	17.5	9.6
Both partners adventitiously deaf; one had deaf relatives, the other had not.	167	7	357	10	4.1	2.8
Both partners adventitiously deaf; neither had deaf relatives.....	284	2	550	2	0.7	0.3
Partners consanguineous.....	31	14	100	30	45.1	30.0

HAPPINESS.

Marriages in which both of the partners are deaf are more likely, other things being equal, to result happily than those in which one of the partners is deaf and the other is a hearing person. The proportion of divorces and separations reported in the marriage records where both of the partners were deaf is 2.5 per cent.; where one of the partners was deaf and the other was a hearing person the proportion reported is 6.4 per cent.*

The more favorable conditions for happiness where both of the partners are deaf, other things being equal, are, doubtless, the strong bond of mutual fellowship growing out of their similar condition, the ease and freedom with which they communicate with each other, and the identity of their social relations and sympathies outside of the domestic circle.

E. A. F.

PARAGRAPHS.—IV.†

Household Duties.—Here is a series of lessons which occupied one-half hour each day for a single week. The headings were written on the slate the day previous, so the pupils might find out for themselves the articles used, and then, during the lesson, give the list of implements and materials. The children also formulated the accompanying rules. To the older pupils short talks were given on methods and results, as well as the sources whence materials are obtained.

* See Table XCI.

† Continued from the November number of the *Annals*, page 413.

HOUSEHOLD DUTIES.

*Monday Washing.**Implements.**Materials.*

Stove.	Kindling.
Bench and tubs.	Coal.
Washboard.	Water.
Wringer.	Soap.
Wash-boiler.	Starch.
Clothes-line.	Indigo.
Clothes-pins.	
Clothes-poles.	
Clothes-baskets.	
Clothes-stick.	
Dipper.	
Pail.	

Soap is made from grease and lye.

Starch is obtained from plants.

Indigo comes from a plant also.

Rule: Wash clean, rinse thoroughly, and starch well.

*Tuesday Ironing.**Implements.**Materials.*

Stove.	Kindlings.
Irons.	Coal.
Iron-stand.	Water.
Iron-holder.	Wax.
Fluting-machine.	
Table.	
Skirt-board.	
Bosom-board.	
Ironing-blanket.	
Ironing-sheet.	
Clothes-horse.	
Basin.	

Rule: Sprinkle carefully, iron smooth, air well, and fold neatly.

Wednesday Mending.

<i>Implements.</i>	<i>Materials.</i>
Sewing-machine.	Thread { cotton. silk. wool.
Work-basket.	
Sewing-needles.	
Darning-needles.	
Bobbin.	Pieces to patch with.
Wooden ball.	Buttons.
Scissors.	Tape.
Thimble.	Wax.
Ripping-knife.	Emery.
Tape-measure.	

Rule : Match the pattern and colors, take small stitches, and darn carefully.

Thursday . . . Shopping and Visiting.

Purse and money. Clean clothes and faces. Cards and card-case.

(One of the girls insisted that face-powder was also necessary.)

Friday's duties were given on this same day, in order that Saturday's might be talked about during school hours.

Friday Sweeping and Cleaning.

<i>Implements.</i>	<i>Materials.</i>
Step-ladder.	Chamois skin.
Carpet-sweeper.	Water.
Broom.	Soap.
Whisk broom.	Sapolio.
Feather duster.	Bath-brick.
Dust-cloths.	Stove-polish.
Window brushes.	Furniture polish.
Window cloths.	Insect powder.
Mop.	
Scrubbing-brushes.	
Stove-brushes.	
Dust-pan.	
Basin and pail.	

up the sides and fasten at the corners —
 and painted

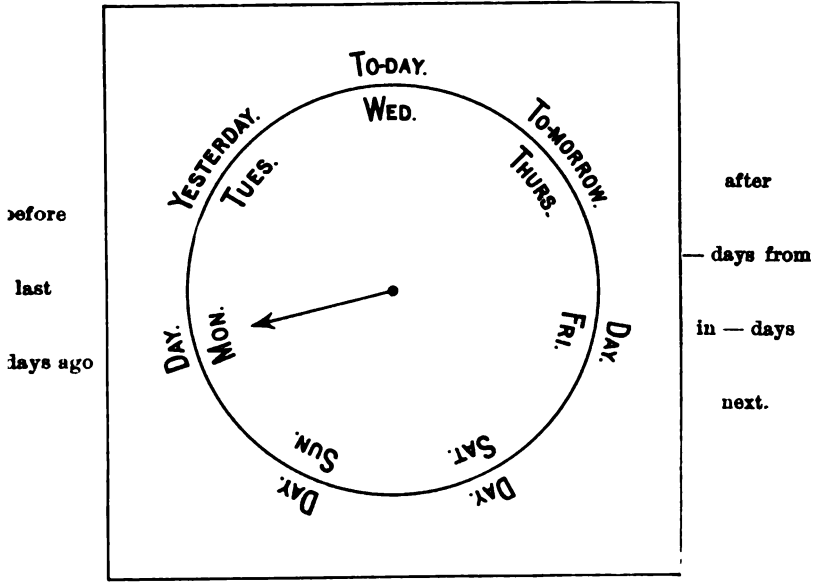
How to Bake Cakes, Pies, etc.

Tools.

Materials.

Kindling and coal—	
Flour.	
Butter.	
Lard.	
Eggs.	
Salt.	
Sugar.	
Milk.	
Water.	
Chocolate.	
Fruit.	
Baking-powder.	
Yeast.	
Spices.	
Flavoring extracts.	
Perfect cleanliness and careful attention.	
are given as the pupils gave them in the	

Happened.—Frequently children find it difficult to describe in correct language when a thing has happened. To assist them to a better understanding of the matter this little diagram was made. It is a square of cardboard, with a disk and pointer of the same material, placed one above the other as in the illustration.



The disk is movable and the pointer also. If "to-day" is Wednesday, the disk is turned until "Wed." is under the word "to-day"; then if the incident to be told occurred on Monday, the pointer is placed at that day, and the child has the choice of expressions—"Last Monday"—Day before yesterday," or "Two days ago." If it took place previous to that, he can count back and say, "Three days ago," "Last Sunday," etc. In the same way, the diagram may be used for the future, and he may choose between "I will go home in two days," "day after to-morrow," or "next Friday." The whole circle being a week, "Last week Wednesday," or "Next week Friday," can be as easily taught as the other phrases.

Games.—At Christmas time the children are apt to receive many games. Write the names of these on one of the slates and leave them there. It is well to form sentences containing these names, as, though all are games

and all are played, yet the phraseology used in speaking of them differs materially. With some a preposition is used, and with others the name follows directly after the verb. It is only a trifle for a child to insert the word "the," but woe to the one who writes, "We played the ball," for has he not been guilty of a "deaf-mutism"? Yet foreigners do precisely the same thing and no one classifies their sentences under that head.

Then, again, the children are apt to think that the word "played" can be used with unvarying correctness. This may hold true in nine cases out of ten with regard to boxed games, but in out-door sports the verbs also differ. We play ball, we play marbles, but do we ever play rope? When the boys come in, fresh from some jolly romp and anxious to tell of it, yet wishing to speak correctly, you will find that a rapid glance will be given at the slate to see if the beloved sport is there, and, if so, it will be with increased confidence that they begin their tale. Here are a few sentences for illustration :

We played tiddledy winks.

We played jack-straws.

I turned somersaults on the grass.

I played hop-scotch.

The boys had a tug-of-war.

Some boys walked on stilts.

The boys had a wrestling match.

We played blind man's buff.

We pitched quoits.

We had a game of base-ball.

We jumped rope.

We rolled our hoops.

The boys played prisoner's base.

And dear to the hearts of the boys will be "the new woman" as a teacher, for will she not understand all the ins and outs of their games?

Rote or Originality.—Shall children commit to memory by rote, *verbatim et literatim*, or may not some license be allowed in the rendition of what they learn? Will they become mere parrots if the rote system is followed?

These questions are tossed back and forth as the balls on the tennis-courts in the hands of expert players, and the game seems ever to end in a tie. To the deaf, never having the advantage of the constant repetition of sentences which their hearing brothers have, it would seem better, for a few years at least, to demand strictly memorized replies. In this way a foundation of correctly formed sentences may be obtained on which to build in after years original structures. It may be plodding, homely work, but surely it will be beneficial. A mother, who had trained her own deaf son, asked a few days ago, "Why is it? V—— can read advanced works and understand them too, and he delights in reading, but his written English is execrable." She acknowledged that very little memorizing had been done, and this, I think, was a full answer to her question. Hearing people do not always catch the entire sentence of a speaker, but because they have a knowledge of how certain sentences are formed they know what has been said.

On the other hand, do not fall back into the old-time fashion of compelling the pupil to frame each idea after some set model. Give a part of each day's time to both methods. "How large a part?"—ah, that I cannot say. My reply can only be that of the good old Southern cook when asked for a recipe—"Jess abou' so much flour and de same ob butter." "But, Auntie, do you mean a cupful, or how much?" "No! chile, no! on'y jess nuff."

L. MOFFAT,

Instructor in the California Institution, Berkeley, California.

[TO BE CONTINUED.]

SCHOOL ITEMS.

Arkansas Institute.—Mr. Rufus Henry Lamb, principal of the colored department, died of consumption December 24, 1896. He was the first pupil admitted to the Institute, and after graduation was appointed supervisor of boys. From that position he rose to be foreman of the shoe-shop, then teacher, and finally principal of the colored department. He married Miss Allie Gilliam, September 7, 1893. "He was respected and beloved by all the pupils and teachers of the Institute."

Calcutta School.—The *Calcutta Statesman* of December 31, 1896, gives a full report of a public reception to Mr. J. N. Banerji on his return to Calcutta. Addresses were made by Mr. Banerji, Mr. P. C. Mozoomdar, and other distinguished gentlemen, native and English. Resolutions were adopted thanking President Gallaudet and Mr. Van Praagh for the instruction given Mr. Banerji in the schools under their direction during his residence in America and England, and other friends in these countries who rendered him pecuniary and other assistance. The Hon. J. Woodburn, who occupied the chair, stated that the government aid to the School had been increased, but that still the appropriation fell far short of its needs.

Cross School.—Mr. J. G. Shaw, Head Master, made a statement on the 8th of October last to the Educational Committee of this School, giving forcible reasons why it is better for pupils to be educated in a boarding-school than in a day-school. By direction of the committee the statement has been published. It is entitled "Institutions v. Day Schools," and makes a pamphlet of seven pages.

McCowen Oral School.—The publication of a quarterly magazine, called *The Little Deaf Child*, was begun last autumn. It is "designed to be of assistance to those who have the care of little deaf children." The first number

contains 24 pages quarto, handsomely printed on good paper, and illustrated by the pupils. The subscription price is 50 cents a year. Address Miss Mary McCowen, 6550 Yale Avenue, Station O, Chicago, Illinois.

Maryland School.—Mr. William R. Barry has been elected President of the Board of Visitors. Mr. Barry, who has a deaf daughter, a teacher in the School, has been a member of the Board for many years, filling the office of Vice-President, and has always been active in promoting the welfare of the deaf in Baltimore.

New Jersey School.—Miss Mary D. Tilson has recovered her health and has resumed work. Miss Estelle M. Dey, who taught as her substitute during her illness, has been employed as a regular teacher for the rest of the school year, the increased number of pupils making this addition to the teaching force necessary.

Nürtingen Institution.—Nearly the whole of the *Organ der Taubstummen-Anstalten in Deutschland* for December, 1896, is devoted to a report of the proceedings at the celebration of the fiftieth anniversary of the establishment of the Royal Institution at Nürtingen, Würtemberg, on the 10th of October last. This was also the fiftieth anniversary of the professional labors of the first teacher of the Institution, Mr. W. Hirzel, now Chief Inspector of the Institution at Gmund, and the fortieth anniversary of the labors of Mr. Weber, head teacher of the Nürtingen Institution. Prominent officials of the kingdom and representatives from other schools for the deaf were present and took part in the exercises.

Pennsylvania Institution.—Miss Kathleen Saylor, a teacher in the Oral Department, died January 20, at the Methodist Hospital in Philadelphia, in consequence of a surgical operation attended with blood-poisoning. She was trained for the work by Miss Plympton, now of the Portland School, and taught a year in the Manual Depart-

ment and two years in the Oral Department. "She was a faithful and highly esteemed teacher, modest and unassuming in character, gentle in disposition, with a smile and a kind word for everybody."

Western Pennsylvania Institution.—Mr. W. N. Burt, principal, and Mrs. Jessie B. Monroe, formerly a teacher of this Institution, were married at Flint, Michigan, at the residence of the bride's father, on the 12th of January last.

Wisconsin School.—The *Delavan Republican* of January 14 contains an article, by Mr. Warren Robinson, describing the fine new manual-training building recently erected at a cost of over \$12,000. In it will be taught forging and machine-work, wood-work, cooking, sewing, and art, and it also contains the electric light and power plant of the School.

Utah School.—The pupils have resumed the publication of the semi-monthly *Eaglet*, which has been suspended during the past three years.

MISCELLANEOUS.

Braidwood in America.—It is known that John Braidwood, Jr., a grandson of the founder of the Edinburgh school, made several attempts during the second decade of this century to establish schools for the deaf in America. He organized, or attempted to organize, schools in Virginia, at Baltimore, and in New York city. His efforts in Virginia were generously aided by Col. William Bolling of Cobbs, Goochland county, who had two deaf brothers and a deaf sister educated in Edinburgh, and a deaf son whom, with others, Braidwood taught for a time at Cobbs and at Manchester, Virginia; but these attempts all failed ignominiously through the unfaithfulness of the teacher.

Mr. Charles R. Ely, of Gallaudet College, has recently discovered in the correspondence of Thomas Jefferson and Joseph C. Cabell, relating to the establishment of the University of Virginia,* the following interesting references to one of Braidwood's schemes :

1. *Letter of Joseph C. Cabell to Thomas Jefferson.*

RICHMOND, 16th January, 1816.

* * * The petition respecting the house in Charlottesville,† Mr. Maury and myself have determined not to press into view until the college gets well under way, because its fate should be made dependent on the latter. A Mr. Braidwood, teacher of the deaf and dumb, now established at some point on this river below the falls, would come to Charlottesville and establish himself there, provided he could get such a house as Mr. Estes' [the one it was proposed to buy for the academy]. How would it answer your purposes to get an act passed for a lottery to purchase that house for an establishment for the deaf and dumb, as a wing of Central College? In your answer it would be well to separate anything you have to say of a private nature from what it might be well to communicate to certain members.

2. *Letter of Joseph C. Cabell to Thomas Jefferson.*

RICHMOND, 23d January, 1816.

* * * It is barely possible the General Assembly may give something to the Central College for teaching the deaf and dumb. I am attempting to prepare the more liberal part for an attempt at an endowment of a professorship of the deaf and dumb. Thus far it is well received, but I may be baf-

* "Early History of the University of Virginia, as contained in the Letters of Thomas Jefferson and Joseph C. Cabell," Richmond, 1856, pp. 44, 46, and 49.

† The proposed purchase of a house was to be for the establishment and use of an academy. The proposal, though favored at first, was finally rejected, lest it might conflict with the interests of the "Central College," chartered in 1816, which afterwards developed into the University of Virginia.

fled. I have thought that such a plan might engage the affections of the coldest members. Any suggestions from you on this subject would be thankfully received.

3. *Letter of Thomas Jefferson to Joseph C. Cabell.*

MONTICELLO, January 24, 1816.

* * * I know of no peculiar advantage which Charlottesville offers for Mr. Braidwood's school of deaf and dumb. On the contrary, I should think the vicinity of the seat of Government most favorable to it. I should not like to have it made a member of our college. The objects of the two institutions are fundamentally distinct. The one is science; the other mere charity. It would be gratuitously taking a mere boat in tow, which may impede, but cannot aid, the motion of the principal institution.

Mr. Jefferson's objection seems to have given a death blow to the scheme; it is not mentioned again in the correspondence.

The Report of the Glasgow Committee.—A committee of the directors of the Glasgow Institution, consisting of Joseph Corbett, D. D., Mr. William Mitchell, and Mr. W. H. Addison, have recently made an investigation of methods of instructing the deaf, and have published the result in a report of 24 octavo pages (Glasgow, December, 1896). The Committee visited prominent manual, oral, and combined-system schools in England and Scotland, and sent a carefully prepared circular of inquiry to eminent instructors, clergymen, and others who are familiar with the adult deaf in Great Britain, the United States, and the continent of Europe.

The special points on which information was desired and guidance sought were these :

- (1) The comparative value respectively of the Pure Oral, the Sign and Manual, and the Combined Systems.
- (2) The relative advantages or disadvantages of day classes

in connection with public schools, as contrasted with institutions or homes in which the pupils are lodged and boarded as well as taught.

(3) The extent to which the distinctive results achieved by the Oral Method are of practical benefit to the pupils after they have left school; how far, that is, they make use of the articulation and lip-reading acquired, in their intercourse with their families or with society generally.

(4) The question whether it is necessary absolutely to prohibit signs, to forbid the use of the manual alphabet, and all intercourse with children who are being taught on the silent system, in order to obtain good results on Oral lines.

In the schools visited the attention of the Committee, in order to ascertain the best results attainable by the different methods, was chiefly directed to the more advanced classes. The tests usually applied they describe thus :

The teacher selected a passage to be read by the scholars, the Committee being without any knowledge of the subject, except such as was to be gained by listening to the pupils. A lesson in dictation was then given by the teacher, to be written by the class entirely from his lips. Tests were applied to bring out the knowledge of language possessed by the scholars, and their skill in composition. The members of your Committee then took the teacher's place, and put questions to the pupils, with a view to discovering how far they could read the lips of strangers, and hold communication with them by articulate speech. These tests, it will be understood, are tolerably severe, but it was thought they were of the kind best fitted to lead to reliable conclusions.

The results of these tests are stated as follows :

In the greater number of classes the articulation even of advanced pupils when reading was so indistinct that it was hardly possible to make out more than a word or two here and there. The reading of a few could be followed with some fair measure of success, and in one or two instances it was possible to understand nearly every word. In one class, composed of children

who had been taught first on the Manual, and later on the Oral System, the results were remarkably good. With two or three of the pupils of this class conversation was quite practicable, and by the class generally the dictation given by the teacher was well done. Such instances, however, your Committee are compelled to say, were by no means common. It should also be mentioned that in some cases the children who showed excellent results had not been born deaf.

In some of the day-schools visited there were occasional instances of exceptional attainment, but the general level of success, from the stand-point of Oralism, was by no means satisfactory, a fact that does not necessarily reflect, as it seems to your Committee, on the ability of the teachers, but can be largely accounted for on other grounds to which reference will afterwards be made.

In conference with the teachers the Committee found that some of them insist very emphatically on the necessity, if good Oral or Lip-reading results are to be reached, of the entire separation of the pupils from those who are being taught on the Sign and Manual System. But the facts observed did not bear out their contention, since as good articulation and lip-reading were found in institutions where the two methods are followed side by side as were found in others where pure Oralism is insisted on.

As between day-schools and boarding-schools, the Committee found the latter far preferable. The inferiority of the day-schools they ascribe to the difficulty of grading the smaller number of pupils, the failure of parents to second the efforts of the teachers, the irregularity of attendance, and the poor food, clothing, care, and sanitation of the pupils' homes. They add that while theoretically it seems advantageous that deaf-mutes, when attending an ordinary school, should have the opportunity of mingling with ordinary children, it is found practically that this opportunity is very rarely taken advantage of.

The Committee in their report make interesting extracts from the replies of their correspondents to the questions

contained in their circular. Among those quoted are Dr. Warring Wilkinson, Dr. Job Williams, Dr. Thomas Gallaudet, Mr. J. E. Ray, Mr. C. W. Ely, Mr. S. T. Walker, Mr. H. C. Hammond, Mr. J. R. Dobyns, Mr. F. D. Clarke, and twelve American clergymen. The circular of inquiry was addressed also to several prominent American advocates of the oral method, but it seems that none of these replied. The answers received from a few oralists on the continent of Europe are given.

The general conclusions reached by the Committee are as follows :

(1) That Oral teaching is of advantage as a method of education, fitted to stimulate the intellectual life even of children who do not make great progress in articulation and lip-reading ;

(2) That it is only a very small percentage of children who, either under the pure Oral or the Combined System, attain the position of being able to speak intelligibly to a stranger or to read his lips without difficulty ;

(3) That the theory of teaching on pure Oral lines, to the exclusion of all signs, is rarely found practicable, and it does not appear that where signs are most rigidly prohibited the results have been greatly, if at all, superior to those attained under the Combined System. Exceptional cases do occur, but the general rule, in the judgment of your Committee, is as here stated ;

(4) That Lip-reading and Articulation, when fairly mastered, while appreciated and practised to some extent in the family circle and among intimate friends, are, as a rule, of little practical value so far as regards the deaf-mute's intercourse with society generally, or in the pursuit of his ordinary work ;

(5) That the Oral System is of special advantage in the case of children who are possessed of some remnants of speech or hearing, which it is manifestly of great importance to preserve and develop ;

(6) That the measure of success attending any method of deaf-mute education is determined much more largely than in the education of other children by the capability and character

of the teacher, who, if he is to do good work, must be distinguished not only by general educational qualifications, but by a large measure of patience, tact, vivacity, and enthusiasm;

(7) That the system of Institutions or Homes, where the children are lodged and boarded, is unquestionably better adapted to the peculiar necessities and conditions of deaf-mute children than Day-classes in Public Schools.

In view of these conclusions your Committee are strongly of opinion that, in the conduct of the Langside Institution under your care,—

The Combined System already followed should, in its main features, be adhered to. Advantage, however, should be taken of the favorable conditions secured through the addition of new class-rooms to develop lip-reading and articulation more systematically than has been practicable hitherto.

No scholar should be restricted to the Sign and Manual method until, after fair and careful trial, it has been found that the attempt to educate such scholar on Oral combined with Manual lines would be injurious rather than beneficial; and all practicable means should be employed to preserve and maintain such remnants of speech and hearing as any of the pupils may be possessed of.

The recommendations of the Committee have been adopted by the Board of Directors.

Thomas Arnold.—The Rev. Thomas Arnold, well known in Europe and America as a prominent educator of the deaf, died at his residence in Northampton, England, January 21, 1897, aged 80. Mr. Arnold began his work as a teacher of the deaf in 1840 at the Yorkshire Institution, then under the direction of Charles Baker. Two years later he was offered the position of head-master in one of the principal British institutions, but declined it because his conscience would not allow him to become a member of the dominant church and teach the creed required. After pursuing a five years' course of preparatory study he entered the ministry of the Congregational Church,

and filled pastorates in England and Australia. In 1860 he became minister of the Doddridge Chapel at Northampton, and in that town he resided until his death.

In 1868 Mr. Arnold undertook the education of a bright deaf boy named Abraham Farrar, and not only rendered him proficient in speech and language, but fitted him to pass the Cambridge University Local Examinations and four years later the Matriculation examination of the University of London. Mr. Farrar has since gained distinction as a writer and scholar. This success brought Mr. Arnold applications from the parents of other deaf children, and he finally resigned his ministerial labors and devoted himself to the work of a private school for the deaf, which he carried on successfully at Northampton until his advancing years compelled him to withdraw from active service.

Mr. Arnold was an earnest, but not extreme, advocate of the oral method. He was the author of several books and pamphlets relating to the education of the deaf, and a contributor to the *British Quarterly Review* and the *Annals*. The most important of his works is "Education of Deaf-Mutes: a Manual for Teachers," in two volumes, which he wrote at the request of the English College of Teachers of the Deaf.

An excellent sketch of Mr. Arnold, from which most of the above details are derived, was published in the *Silent Worker* for September, 1895. For the portrait we are indebted to the Volta Bureau.

Sign Names.—We wish to second the vigorous protest that "D," in the *Silent Hoosier* for January 28, makes against a barbarous practice, which, we are happy to believe, now prevails in our schools much less than it did a few decades ago:

The eyes of most deaf children are unusually quick in taking in the features of a new face—noting especially any marked or

distinctive items, and, having no name for the individual, they at once associate the peculiarity and the person in their memory, so that ever after the one serves to recall the other. In our schools if the new arrival has a speck, scar, or defect of any kind visible, quickly move the fingers, and without leave or agreement he is christened, and forever after he is the boy with one eye,—with a scar on his cheek,—a deformed nose,—red hair,—cross eyes; or the fat boy,—the lean boy,—the lame boy.

They cannot think of the effect of this—at least, they do not. In many cases, no doubt, these features or defects have been a burden to their innocent possessors. And now as they enter a new community, it must be terrible to have them noticed, and so set out publicly and persistently.

The delicate little girl who has cried often in secret because her hair is red and not the beautiful brown she admires, finds that hated feature is to be hereafter, with all about her, her name; and the boy marked by a birthmark has the attention of every one drawn to it by the “sign” given him.

We speak of such cases in the hope of interesting teachers to use influence to protect these sufferers. They should not only not take part in such cruelty, but prevent thoughtless pupils from doing it. This can be done by teaching the names as soon as possible, and using them constantly.

To help you to a wholesome appreciation of this matter, say aloud, as you call your class, “Come up, One-eye,” “Stand here, Flat-nose,” “Write, Spottie,” “Hurry up, Limpy,” “Be quiet, Red-hair,” “Come to me, Curly,” and test how it sounds. You cannot test how it must often feel.

If at times there is a seeming occasion for an individual sign, base it if not upon a beauty spot, at least upon one which will not suggest deformity. We do not know the “sign” of a single pupil in our classes, and certainly should not use it if we did. We consider the practice not only unnecessary, but in many cases offensive, and shall rejoice when it is discontinued in all our schools.

The editor of the *Annals* remembers well the mortification and pain he sometimes saw inflicted upon deaf children in this way when, as a child, he lived among them.

One scene especially recurs vividly to his mind amid recollections of more than forty years ago. A beautiful girl from a refined home had said good-bye to the friends who brought her to school, and had borne that ordeal bravely. As she stood bewildered and embarrassed in her new surroundings, suddenly all eyes were turned upon her in eager search for some physical peculiarity that might serve as her sign name. Finally, one was discovered or fancied. Immediately everybody began to point at her and to make a gesture that she could regard only as a sign of ridicule. Her face flushed and her eyes filled with tears. What a welcome that was for a sensitive child among strangers!

Der Taubstummenführer.—The publication of a Catholic periodical entitled *Der Taubstummenführer*, intended "for the edification, instruction, and entertainment of adult deaf-mutes," was begun last year at Treves, Prussia. It appears twice a month, and is edited by Mr. J. Huschens, a teacher in the Treves Institution, and Mr. Paul Röntgen, a teacher in the Institution at Aix-la-Chapelle. A feature of the periodical which seems strange to American readers is its marriage advertisements, of which the following is a specimen :

A frugal, worthy, good-hearted Catholic deaf-mute, 24 years of age, of fine appearance, engaged in a successful business, and with an inheritance of about 4,000 marks, wishes, in order to establish a happy home, to enter into a matrimonial union with a worthy Catholic maiden, deaf-mute or hearing, from 19 to 27 years of age, with property of from five to ten thousand marks. A widow without children not objectionable. Address No. 6, office of this periodical.

The Annals Index.—An Index to the *Annals*, volumes xxxi–xl, inclusive, is sent to subscribers with the present number. Indexes to volumes i–xx and to volumes xxi–xxx,

inclusive, may be obtained for 50 cents each, or these two Indexes, bound together in cloth, for \$1.00. The three Indexes, bound together in cloth, may be had for \$1.50.

Publications.—Since the issue of the last number of the *Annals*, we have received the following publications :

GILLETT, PHILIP G., LL.D. Some Notable Benefactors of the Deaf. Annual Address of the President of the American Association to Promote the Teaching of Speech to the Deaf. Rochester, N. Y.: Western New York Institution for Deaf-Mutes. 1896. 8vo, pp. 33.

WIDD, THOMAS. A Brief History of the Los Angeles Association of the Deaf, and Interesting Facts Relating to the Deaf Generally. Los Angeles, Cal.: Norman V. Lewis. 1897. 8vo, pp. 48.

REPORTS OF SCHOOLS, published in 1896: Clarke, Colorado, Columbia, Genoa (Italy), New South Wales, North Carolina (Raleigh), North Carolina (Morganton), Rotterdam (Netherlands), Sbrocca (Alessandria, Italy), Texas.

REPORT of the Mission Hall for the Adult Deaf and Dumb, Belfast, Ireland, 1896.

ADVERTISEMENT.

WANTED.—By a lady with some experience as a teacher, a position in a deaf-mute school, or as governess to a deaf-mute child. References given. Address H. E., 146 42d Street, New York City.



THE COLUMBIA INSTITUTION FOR THE DEAF AND DUMB,

1857.



A GLIMPSE OF KENDALL GREEN,

1897.

AMERICAN ANNALS OF THE DEAF.

VOL. XLII, No. 3.

APRIL, 1897.

VARIETY IN REPETITION.

It was once my fortune—not wholly my good fortune—to live in the house with a Baby and his grown-up satellites. The child was just beginning to comprehend and put words together. His own linguistic efforts were confined mostly to an indistinct but imperative “Auntie, play horse,” which marvellous and original combination of words and ideas was accepted by his satellites as giving unmistakable promise of future genius. Their continual talk from morning till night *about* the Baby was tiresome in the extreme. Their talk *to* the Baby, on the other hand—when considered in its relation to the development of language and not as the conversation of reasonable human beings—was valuable and suggestive. One familiar with both could not fail to note the advantage of the hearing over the deaf child in the matter of repetition. He would also be much struck, observing carefully the variety of ways in which this repetition was presented.

For instance, one day—it was a rainy day in the country, and there was no escape from the infant Buddha and his worshippers—I counted the word “come” addressed to the child seventeen times, “like” fourteen, “give” ten, “kiss” twelve, “want” twenty, “laugh” fourteen, and “see” thirty-four.

The word “stockings”—he had a prejudice against the

wearing of those articles—was repeated just twenty-two times in five minutes by a member of the family who was trying to persuade him to don them. "Pretty" was given forty-two times; "gone away," ten; "good," sixteen, and "naughty," seven. I lost track of "yes" and "no" at an early stage of the observation, also of the petition "Tell auntie." This latter phrase must have mounted into the hundreds, or even the thousands, I think. In fact, if the child had "told" each time he was requested, his replies would have filled a book larger than the Baghat Vita, the Koran, and the Talmud combined. And this sort of thing in language, this varied repetition of words and idioms, is, year after year, the daily portion of every hearing child.

We all know how different—how sadly different—is the case of a deaf child. There is no need of dwelling on the fact that he sees a word only once, or not at all, perhaps, where his more fortunate brother learner in language hears it a thousand times.

The ratio of one to a thousand is none too great to express the difference between the two. Our task, our sole task as language teachers, is to diminish this ratio. If we succeed in doing that, we are good teachers. If we fail, we are not only poor teachers, we are criminal men and women sinning against God's little ones. Woe be unto us if, through our thoughtlessness or sloth, we put them off with the husks of signs and barren text-books when we should be giving them the living bread of language.

The necessity and value of repetition is universally acknowledged. The necessity and value of *variety* in that repetition is neither practised nor acknowledged so generally as it should be. The reasons for this are various. First, and most serious perhaps, as standing in the way of progress is the deep-seated, half-unconscious prejudice which some of us older teachers cherish against the "new education." We suspect it as lacking in thorough-

ness, that fetish of last century's school-master, ignoring the fact that, in language, fluency and comprehension, not thoroughness, are, par excellence, the ends to be desired. But, whether we approve it or not, the new education has come to stay. Those who have watched the signs of the times for the past decade know that the old order is forever overthrown, and that the new, founded upon sound psychological principles, already holds sure possession of the field. Some of us, perhaps, are not quite aware of all that has happened educationally during the last ten years. We are, more's the pity, a little out of the general current. But the flood-tide is bound to reach us before long and we shall be called upon to do one of two things. We must either study the new education, apply its principles to our own line of work, and go with the great stream of modern pedagogic thought, or we must allow ourselves, and that very soon, to be set aside and superseded by younger men and women trained in the principles of the new school.

It is a thousand pities that more teachers of the deaf do not attend general educational conventions. A great meeting like the one at Saratoga last summer is full of suggestion and help for us. It is also a pity that we do not read more in this connection. Nothing could be more valuable than the Report of the Committee of Fifteen, the Report each year of the Commissioner of Education, published lectures, etc., etc., without end. The series of articles upon education by Dr. Rice in the *Forum* is quite as valuable for us as for teachers of hearing schools. Perhaps the one thing—and I hope I may be pardoned for mentioning it a second time—which most perfectly embodies the spirit of the new education is the model primary school under the auspices of Chicago University. It is an experiment which cannot be too highly praised or too closely studied. Would that some millionaire interested in the deaf might establish a similar school for our

little ones. Another thing we might profitably do is to visit hearing schools oftener than we do. Only a few of the elect among us—usually the articulation, not the language teachers—are privileged now and then to make a tour of different institutions for purposes of comparison and improvement. But every school might well allow each teacher one half day out of every term to visit one or more of the hearing schools in the neighborhood.

To return to the question of thoroughness in review. It was the old way to let a class go "through" a certain book; then to turn back to the beginning and go straight through it again and again until its contents were mastered by the dullest pupil in the class. The sufferings of the brighter spirits during this unnatural and painful process may be easily imagined and need not here be dwelt upon. The new, and as some believe, the better method of review is to seize upon the salient points, the chief idioms, the hard constructions of the book or original task, and with careful foresight to embody these in new lessons upon a dozen or more different subjects. It is only in some such way as this that we can secure that mental *alertness* so necessary to the quick comprehension and the ready use of language.

We have all seen deaf children kept term after term on journals or action work until their class-room productions were nearly perfect. We have also seen, too, those same routine-bred children entirely bewildered, helpless, and aghast at being called upon to carry on a written conversation with a chance visitor. The idioms and phrases, the verbs and pronouns which had become nearly automatic in their school-room exercises seemed here to be quite forgotten. Why? Simply because, having been used in one connection only, they had never really been assimilated. The minds of the children had not been properly trained. There was no mental agility. They had had no practice in making quick transitions in thought—in jump-

ing at a bound, like hearing children, from one subject to another. Only through variety in its use and presentation does language become a living thing. Every one who has gained an approximately fluent use of a foreign tongue knows that. And just here comes in a trouble which might, and at no very distant day will, be remedied. Some of our teachers have no such personal experience. They have never passed through the struggle of acquiring the practical use of a foreign language, and have, therefore, no business to be in the profession at all. The remedy lies in their own hands; and, if they are too indolent to seek it, they should go into something where the lack of such experience will work less harm than in the education of the deaf.

This matter of laziness—mental laziness I mean—is another less worthy reason why we cling to the old narrow way of teaching. To design constantly new lessons which shall embody old principles means much hard thinking for the teacher, and most people—especially people who have settled into ruts—hate to think. It means a clear, well-defined unity in the teacher's mind—a unity secured by diversity. Without this unity in the teacher's thought and plan the natural method is likely to work destruction. Hap-hazard natural-method teaching has ruined the language of many a class.

Variety in language-work also means another hard thing; and that is stricter discipline; for a new subject always excites the children, making them lively and consequently harder to manage. By the way, if one doubts the value of variety as a mental stimulant, or nutrient rather, let him honestly compare the children of two classes, taught by the two opposing methods. In one they are dull, heavy, listless in face and manner. Often they appear obstinate in character. They seem always to scuff mentally as they are usually allowed to do physically. In the other they are all alive, eager and alert, interested in every thing on earth, the

heavens above the earth, and the waters under the earth. The cock-sure confidence of each member of the class that, unaided, he is quite capable of managing the entire universe is sometimes wearing, but is, on the whole, preferable to the stolidity of the former class. In any emergency of life it is the children of the latter class who always come out ahead. Variety in language-work involves, too, an almost incredible amount of writing on the teacher's part, for the text-book which will exactly fit *your* class has never yet been written.

A description of one series of unexpected lessons and the circumstances out of which they arose may be of some slight interest to teachers working with a similar grade—from the fourth to the sixth year. The Christmas holidays were over, and, barring the remotely cheerful prospect that we should “all go home in one hundred and seventy-five days,” there was nothing of special interest in sight. It had been atrociously bad weather, and the steam of youthful spirits confined within doors had turned to mischief and discontent. Action work palled. Putting the green book on the radiator was no longer felt to confer distinction upon the chief actor in that interesting little drama. It was the same way with daily journals. Oral statements to the effect that “Miss G. went to the city,” or that “Mr. H. did not ride on his bicycle,” though still affecting the average visitor to tears, had ceased to excite the class. Pictures no longer allured, articles of wearing apparel were now recognized and correctly labelled by the meanest intellect in the class, although an occasional “The man has a head on” showed that idioms had not, perhaps, been fully mastered. There had been a mild outburst of patriotism over a set of lessons upon eminent Americans, but the eminent Americans gave out sooner than one would have expected, and the class had again relapsed into ennui and mischief. It was then that the following lessons were

planned. Their success has been gratifying beyond expectation.

One morning when the children came into school they found upon the table fourteen five-inch flower-pots filled with earth. After some preliminary written, spelled, and spoken conversation upon the subject of flower-pots in general and these flower-pots in particular, a plate of seeds was produced. These seeds were chosen not because of special fitness for the work in hand, but merely for the good and economical reason that they could be had for nothing.

The names of these seeds—nasturtiums, poppies, pansies, and corn-flowers—were written upon the black-board. Pictures of their blossoms, gorgeous to behold, and enlarged after the seductive manner of seed catalogues, were exhibited and much admired. The three common names applied to the corn-flower were given, and each child was asked to select the one name he preferred, giving his reason for such choice. The fact of its being the national flower of Germany was dwelt upon, and the story of its connection with old Emperor William's childhood was told. The familiar photograph from the painting of Queen Louise was also shown and, later, I found, used as a tableau in the play-room.

To exercise the imagination a little the use of poppy-seed heads as pepper-casters for a doll's tea-table was suggested. For the same purpose a purple and yellow pansy was picked to pieces in order that the children might see the cruel royal step-mother sitting on two chairs, the two scornful step-sisters in cloth of gold, each furnished with a chair apiece, and, way down below, the two rightful princesses in dingy purple obliged to sit together on one chair. Shouts of laughter greeted the discovery of the poor old king sitting down cellar on a stool with his feet in a pail of hot water. All this, I grant, was, viewed from the Gradgrind standpoint, something of a digression

fully counted for her the new leaves that had appeared since her illness. Then, replacing it, he assured her that he would continue taking care of it until her return to school. Sir Walter Raleigh himself could not have performed the little act more gracefully.

Another day I was suddenly startled by loud sobs from a little girl who had never, during her two years in my room, cried before. I hastened to her side, more moved than usual by the sight of tears, to ascertain the cause. "C has break my plant," she gasped, pointing to the window. I turned, expecting to see a wreck, but was surprised to find only a single leaf of a flourishing nasturtium hanging limp and helpless from its stem. C, in examining his own plant, had somewhat roughly brushed against hers, and she thought its growth was stopped forever. A glimpse like that into the heart of a child makes one feel very strongly that every institution should provide a garden for its pupils. A little, even an unsightly, plot of ground owned, planted, and cared for by the children themselves would be of more real worth than all the velvety lawns and geometrical flower-beds in creation.

The following list of exercises by which school-room work may be varied has sometimes proved valuable to new teachers:

One thing which we should have daily year after year in every grade:

Conversation, remarks, and suggestions embodying new language, written unexpectedly upon the black-board and left there as long as possible.

Exercises which we must have frequently in all younger grades:

(a) Journal: For practice in the past tense, also to enable the children to express what they want to say about every-day matters.

(b) Description of pictures and objects: For drill in the present tense and to encourage careful observation.

(c) Story and reproduction: To give pupils a chance to *use*

language not previously memorized and to cultivate the imagination.

Occasional Exercises.

1. Letters.
2. Verb-drill: Changing affirmative sentences to the interrogative form and *vice versa*. Filling out of blanks, etc.
3. All the expedients suggested by Miss Moffat in her valuable "Paragraphs." For practical, original work nothing more valuable has ever been given.
4. Lessons on manners.
5. Lessons on simple astronomy: finding the north star, Great Bear, etc.
6. Elementary lessons in other sciences.
7. Current topics.
8. Explanation and memorizing of a poem every now and then.
9. Historical places.
10. Historical persons.
11. Great historical events.
12. Places of interest near the school.
13. Lessons about Indians and Gypsies.
14. Stories of the sea.
15. Stories of the mountains.
16. Stories of the desert.
17. Kindness to animals.
18. Language connected with special occasions—weddings, funerals, etc.
19. Building a house. Let each child make a plan.
20. Furnishing a house room by room.
21. Buying a wardrobe.
22. Shopping dialogues.
23. Miscellaneous questions asked unexpectedly.
24. General conversation upon a special topic—spelled or spoken first perhaps, but always left written upon the black-board.
25. Things I like. Let each child write on this subject, giving reasons for preference. "Things I don't like" may be taken in the same way.

As has been already hinted, the main value of variety in repetition is to be found not in its effect on language alone, but in its greater, undoubted influence upon character.

Nothing is more offensive than the attitude of those people who appear to regard the deaf as already constituting "a special variety of the human race"—a variety to be discussed, criticised, and educationally disposed of without the consent or approval of the persons most interested, namely, the deaf themselves. But, while all this is wrong, it is undoubtedly true that any physical limitation is likely to produce and foster certain tendencies, or habits rather, of mind and action. For instance, a confirmed dyspeptic is not likely to feel any great enthusiasm upon the subject of dinner parties, although both circumstances and duty may occasionally compel his acceptance of invitations to certain Barmecide feasts. In the same way a deaf person comfortably situated in an environment where he feels himself at home is often quite unwilling to make a change which would perhaps be of the greatest benefit to him both from a material and a moral standpoint.

Again, it cannot be denied that the necessary routine of Institution life tends to narrowness—to the settling into ruts both of thought and action. To guard against these dangers is our duty. As a preventive measure there is, I believe, nothing more effective than constant variety in repetition throughout an entire school course.

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ILLEGITIMATE UNIONS.

In the course of the Inquiry concerning the Marriages of the Deaf some records of illegitimate unions, one or both of the partners being deaf, came into my hands. It did not seem proper to give these unions a place among honorable marriage records, and they were therefore not included in the marriage statistics that have been published in the *Annals* during the past year; but as a large proportion of them resulted in deaf offspring, I do not feel at liberty to ignore them altogether.

It appears from such statistics of European countries as have been published that illegitimate unions among the deaf are far more frequent in Europe than America. According to a table compiled by Dr. Mygind, out of 409 unions of deaf persons in Pomerania, Erfurt, Saxony, Denmark, and Mecklenburg, 102, or about 25 per cent., were illegitimate unions.* The number of such unions in America of which I have received information is 12, which is about one-fourth of one per cent. of the whole number of unions reported (4,483). It is not supposed that these 12 constitute all the illegitimate unions of deaf persons that have taken place in America, but I am confident that the percentage of such unions in this country does not even remotely approximate the enormous percentage indicated by Dr. Mygind's table.

The number of partners in these 12 unions, so far as appears from the records, was 23. Of these, 11 were deaf women, 4 were deaf men, 4 were hearing men, and 4 were men unreported whether deaf or hearing. Three of the 11 women were probably uneducated, having never attended any school for the deaf. Of one of the unions I

* H. MYGIND, "Deaf-Mutism," London, 1894, p. 47. In all these illegitimate unions the male partner was a hearing person. Of 316 unions in which one of the partners was deaf and the other a hearing person, 102, or about 32 per cent., were illegitimate unions.

have no information with respect to offspring resulting therefrom. The number of children reported as born from the 11 remaining unions was 18.

Regarding the 11 unions of which the results are reported, the following table shows the number and percentage of them that resulted in deaf offspring (with or without other offspring) :

TABLE A.

Illegitimate unions.	Number of unions.	UNIONS RESULTING IN DEAF OFFSPRING.	
		Number.	Percent'e.
One or both partners deaf.	11	7	63.636

Regarding the children born from these unions, we have :

TABLE B.

Children born of illegitimate unions.	Number.	Percent'e.
Deaf children	7	38.888
Hearing children	11	61.112
Total	18	100.000

The totals of these statistics of illegitimate unions are too small to afford a basis for trustworthy conclusions, and we need not pursue the inquiry concerning them further ; but the very large percentage of such unions resulting in deaf offspring and of deaf children born therefrom, as compared with the results of marriages, calls for some remark, especially as a similar disparity between the results of illegitimate unions and of marriages appears in the European statistics compiled by Dr. Mygind above mentioned. In the latter the percentages of illegitimate unions resulting in deaf offspring and of deaf children born

therefrom are about twice as high as the corresponding percentages from the marriages reported. Dr. Mygind remarks that this is "a circumstance which can scarcely be accidental,"* but he suggests no explanation of it. In the absence of any apparent reason why illegitimate unions should be more liable than marriages to result in deaf offspring, it seems probable that neither in Europe nor America are the whole number of such unions, nor all of their results, reported. Those resulting in deaf children are likely to be reported, because the sending of the children to schools for the deaf to be educated brings to light the fact of their existence, while, in America at least, those without offspring, and those resulting only in hearing offspring, are not likely to be reported. The percentages of illegitimate unions of deaf persons resulting in deaf offspring, and of deaf children born therefrom, therefore, are probably not actually as large as they appear in the above tables. Perhaps they are really no larger than those of marriages

E. A. F.

THE THIRD YEAR'S WORK.—III.†

III. GEOGRAPHY.

It may seem to some teachers too early to begin the study of geography, but, in teaching the deaf, this study is of great importance as a language lesson. Many of its fundamental ideas—such as water, land, stream, river, hill, city, town, etc., etc.—are of such frequent occurrence that much which you will teach in this study will be of the very greatest use in their every-day language.

The teacher should be supplied with a flat table at least two and a half by four feet, on which should be

* H. MYGIND, *loc. cit.*, p. 48.

† Continued from the February number of the *Annals*, page 83.

fastened with thumb-tacks a stout piece of manilla paper, entirely covering the whole top. In addition, there should be provided a number of toy houses, trees, fences, etc. The smaller these are the better. If they cannot be bought, they may be made of paper, etc.

The first lesson should be given as a game, and as much as possible of the talking should be done by writing or spelling. Ask the pupils if they would like to build a town, or a village, or a school for the deaf, or anything of that sort. I think an imaginary village is best to begin with. "Whose house shall we build first?" Take a house, or let one of the children take one, and write the name on it, "Mr. Smith's house," or "Emma's house." "Where shall we put it?"

Manage so as to have the sides of the house parallel with the sides of the table. Ask questions: "What is in front of the house?" "What is around the yard?" "What is on the other side of the fence?" "How far does the street extend?" "What is the name of the street?" "What is on the other side of the street?" "What other streets cross this street?" "Where is the corner?" "Where is the Methodist Church?" "Where is the grocery store?" "Where is John's house?" "What is on the other side of the street?" It may be that many of these questions, as spelled or written, are not understood by the class, but, by pointing and showing on the table, most of them will be. As you get the answers to each one, have the houses, fences, etc., put on the table in their proper places. The streets may be marked with a lead pencil; so may any streams of water you wish to show; while hills or mountains may be made of coarse dry sand and fine gravel.

Manage your lesson so that you will have to stop before you finish half the things that the children wish to build. Tell them that if you leave the things where they are they will get knocked about and lost, and if you put

them away it will all have to be done over, and they can never again get them just as they are. Suggest that a lead-pencil mark be made around each of the toy houses, trees, etc., before they are taken off the paper, and that the name of the thing be written on the place where it stood. Let them do this themselves, urging neatness in marking and writing.

At the beginning of the next lesson or play, let them find the labelled houses, etc., and place each one where it belongs.

When you have exhausted the possibilities of the first piece of paper, draw a border around it and give it a name. If you wish, you may add a few finishing touches, such as to shade the hills, paint the rivers blue, the trees and gardens green, etc., etc. Then tell them that such a drawing is called a map. Write "Map of" before the name you have given it, and hang the whole paper on the wall.

For other exercises, you may, in the same way, have your pupils build imaginary farms, gardens, play-grounds, etc., such as the facts that they are built on paper, and that you wish to preserve a mark showing where each thing is, will allow.

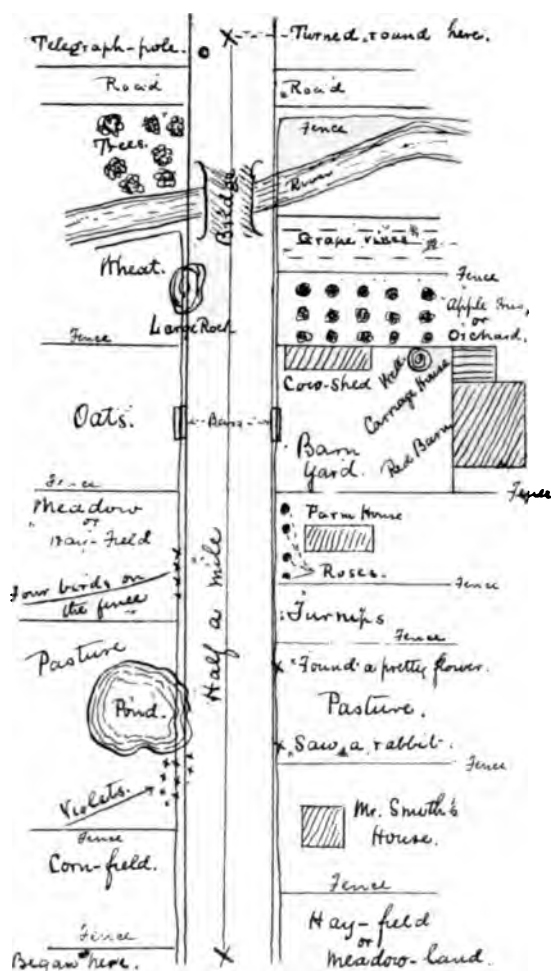
For a more advanced lesson, you may try to reproduce as exactly as possible some small piece of ground, which the children know well, with its buildings, fences, etc.; but if you do this, do not be too ambitious, but choose a very small piece with few difficulties. I would hardly advise this exercise unless your children take very readily to it; for if you make the attempt and fail, it will do more harm than good. Do this, as you did before, by building on the paper and drawing around the different objects. Do not try to get exact representations, but do strive to keep relative distances and directions.

A still farther advance, and one which you will find very interesting to your children, will be to make a sketch

map of one of your walks. Select some straight piece of road or street, without too many objects on it. Let each child have a lead pencil, and a pad with two lines, one for each side of the road, ruled down the middle of it.

Take them to the beginning of your selected walk, and make each of them hold his pad in front of him, as he faces the way you are going. Tell them that the two lines on the pad are the two sides of the road. You are going to walk along the road and make a map of all you see. Everything they see on the right-hand side of the road must be put on the right-hand side of the pad; and everything on the left-hand side, on the left-hand side of the pad. Have them make a mark at the very bottom of the paper and write "Began here." Make conventional signs for any objects that are on either side at the starting point and write their names. Do not let them put down anything till they come to it, and have some sort of a mark drawn to represent each thing, besides writing its name. Tell them it does not matter where they write the names, but the things drawn must be as nearly as possible where they really are. Walk along till you come to something, on one side or the other, then all stop, get the pads in the right position, draw it, and write its name. Of course you will have a pad and keep notes too. At first you will have to do this and let the children look on, or copy your sketch, but they will very soon catch the idea, and will soon need restraining instead of urging. If you have never had any experience in this kind of work, it will be a good plan for you to take the walk alone, before you take the class, and take notes so that you can have some idea of the proportion of your map, and can suggest to your pupils about how much paper they can allow for each object. If you have not done this, make each one as small as you can, with clearness.

When you have gone as far as you wish (and remember that at first you must confine yourself to a straight or



most straight road) ask the pupils how far they have come. The probability is that none of them know—that they have not the slightest idea—that most of them would be just as willing to call the distance six inches, or a hundred miles, as a half or a quarter of a mile, and you will have to tell them. Let them make a mark where you are, and write: “We turned round here.” Between this

mark and the one where you began, draw a line, and write on it the distance you give them.

Of course you will have to show them what to do again and again. You will have to correct mistakes; you will have to tell them not to make the cow-shed bigger than the corn-field; you will have to show objects in plain sight; and very often you will find the same thing down twice, or even on opposite sides of the road; but do not be discouraged,—the first field-notes taken by young men in college are not always faultless. The point you must strive for is to get everything you see, on the paper, in proper sequence, and in some proportion to its size. Though at first some of the pupils will be hard to start, they will catch the idea much quicker than you would think.

After you have reached your turning point, have your pupils turn their maps round, taking next to them what was the top, and show that the different things that they have marked down are all in their proper relations to them, and to each other, as they go back. Ask them as they pass one, what will come next, and make them find out on the map.

Preserve these sketch maps, and at some convenient time in school have them make as nice a map as they can from this rough drawing. Have this neatly lettered, and the different objects on it shown by different marks, or, if you have water colors, by different colors. Spend some time on this redrawing, and have the new maps as neat as it is possible for the children to make them.

If your class take readily to this exercise, and soon become fairly expert at it, you may take up some of the exercises given in the next year's course; but do not try, for a long time yet, to have them draw maps of any considerable width of country, or of crooked roads, as these things can only be done by persons having considerable skill in drawing, or by scale-drawing from careful meas-

urements. If your pupils try it, they will be almost sure to become confused and discouraged. Our intention has not been to get maps of the country, but to build up ideas of how a map is made and used, and to make these ideas very vivid. They need still farther development, which will be given by next year's work.

Now we will begin to teach the use of maps for finding our way in an unknown country and knowing what is there. Take a walk without the children, and make a map of it in the same way, putting in everything that you think will interest them. Take this to school and write an account of a walk that you are going to take tomorrow or next week, and refer constantly to the map in this. Let them copy this account of the walk, and take their copies and the map with you when you take the walk. Follow the map and point out everything there is on it as you come to it. You can arouse tremendous enthusiasm in this way.

IV. PENMANSHIP.

Probably every school has a regular system of penmanship, and by this time your class can take that up. Do not think that, because deaf children write so much every day, they can afford to do without regular lessons in penmanship. Most of this writing is done without giving any thought to the penmanship, and for that very reason some time should be spent every day in carefully trying to improve it, or we shall have many of them writing worse and worse. Penmanship should be continued regularly until they take up book-keeping, which will take its place. In addition to the lessons in penmanship, praise good and criticise poor penmanship wherever you see it in their daily lessons.

V. BUSY-WORK.

This work should more and more take the character of a change in useful work, instead of quiet play ; and as much as possible of it should be language-work. There will be times with every young class when it will be almost impossible to do good work on your regular lessons. A persistence in trying to do so will only bring discouragement to both teacher and pupils. At such times an entire change will do good.

Playing dolls can be made a most excellent language exercise. Let each girl do the talking for one of the dolls, or a doll's parent ; and if language for the ideas that the children wish to express is lacking, you must supply it. Have visits, weddings, parties, etc., just as other little girls do. Have the conversations spelled. Afterwards you can have an account written, in which you can tell what was said and what was done. Some record of these plays should be kept in the scrap-books. This exercise can be made very naturally to lead to the "toy-object method," which has, within a few years, been so fully explained in the *Annals** as to need only this passing notice.

Playing visitor, teacher, superintendent, matron, doctor, dentist, etc., will be great fun for a while. In fact, having your pupils "pretend" that they are different persons and visit your school-room will often give you an insight into their characters you can get in no other way, and will teach them useful forms of language that they would not otherwise meet with. It will aid, too, in the development of their imaginations—a development that the deaf too often lack ; and it will be laying a foundation for exercises that we use a great deal, farther along in their school-life. These pretended visits can sometimes be used to better advantage than a true visit from the real person could be, for, of course, you could not have the

* See vol. xxxvi, pages 237-243.

real governor of the State kept waiting while you made a language lesson out of him.

Another very useful employment will be for you to write a number of sentences on cards for them to change from active to passive, etc. You can devise a number of these exercises from what we have given in this and former articles. Keep these in your school-room for those occasions when part of the class would otherwise be idle. Or you can take the list of verbs in the back of the book and have them make a similar list, using other tenses, or the passive form.

I hope, by this time, that each of your pupils has quite a bookful of classified lists of words—nouns, adjectives, verbs, etc. Let them spend their spare time in making another book in which they can write all these lists in alphabetical order. This will, for a time, be a severe test of their ingenuity.

VI. MANNERS AND MORALS.

Do not forget your training in these. By this time your class should be very agreeable little ladies and gentlemen, such as it is a pleasure to associate with ; but keep your eyes open for the first signs of bad habits. It is so easy for children to pick these up that you should always be alert and break up bad customs before they have time to crystallize into habits.

The deaf are very apt to make remarks on the personal appearance of strangers. Perhaps this comes from their realizing that what they say will not be understood by the person they are talking about. As long as these remarks are kind and good-natured you need not notice them ; but be sure that you train your pupils not to make ill-natured remarks, and especially check them when they begin to ask questions about or call attention to personal defects in strangers.

Most Americans seem to be born patriotic, or to take in patriotism almost with their first breath, but, like so many other things, it will not do to take it for granted that our children know all that they should about it. The proper time fully to teach the meaning of patriotism will be after we begin to teach history; but surely you can begin to make your children understand that Memorial Day means something more than play, the Fourth of July more than fire-crackers, and that the Flag stands for something still more beautiful than its magnificent colors.

Another idea that you should begin to build up in your pupils is that they receive many things while in school, not free, nor as charity, but as part of a bargain. They are to pay for them all by their good behavior, by being the very best citizens in the State, and they ought to begin now. The fine buildings and appliances are given to them in trust only. They must be handed over to another set of boys and girls, and those who have them now must take the best of care of them, so that the new set will have them in good condition. Books, slates, window-glass, clean walls—everything that can be used up, broken, or defaced, must be treated with the greatest care. To replace and repair these things costs a great deal of money, and this money is just so much taken from the general fund. The school and everything in it is for them to use and enjoy, and the more care they take of it the more they will enjoy it. Build up a strong sentiment against the senseless habit of defacing clean walls by writing on them. Ridicule alone can entirely break up this habit.

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PARAGRAPHS.—V.*

Combinations with Prepositions.—Other words which may prove troublesome are those of which prepositions form a part; such as *overheard*, *overslept*, *beforehand*, *behindhand*, *understood*, *outdone*, (and phrases like *under my breath*), etc. The children are apt to think that the prepositional portion of the word retains its original meaning and that *overheard* necessitates the hearer being in a position above or over the speaker, while *behindhand* means behind the hand, etc. These things are easily explained and equally easy to be understood, but are puzzling matters when met with for the first time by the congenitally deaf, and occasionally even the most experienced teacher may forget that that which is so common to the hearing is very uncommon to the deaf.

Canned-fruit Labels.—Another helper in the school-room—and there is a large corps of inanimate teachers—is the use of the lithographed labels of canned fruits and vegetables. They are brightly colored, have the names attached, and if neatly arranged can be made to form quite a decorative feature of the room. Cut off the surplus paper and gum the pictures at short distances apart on strips of manilla paper. Then tack these strips as a frieze above the top of the wall slates all around the room. It will not occupy much space, yet you will have the picture of an article of food with its name continually before the eyes of the children, and within easy reading distance. These labels can be readily obtained, and at a merely nominal cost, by applying at any lithographic establishment in your neighborhood; or, if the East is as polite as the West was in this respect, you may receive in return to your letter of inquiry a large number of labels sent

* Continued from the February number of the *Annals*, page 115.

without any cost, and, in addition, a most courteous note expressing a wish for your success in your work. This came from an entire stranger, and a resolution was made at the time of reading it that it should be told as a memorial wherever the work was mentioned. In addition to the *frieze* of labels long *panels* may be made to hang from picture-hooks. For these take manilla paper again, the heaviest kind, and cut the required size. Then get all the "Floral Guides" and "Seed Catalogues" you can find. Cut from them the full-page colored illustrations and gum them on the panel. Vick's, Henderson's, Maule's, and Vaughn's seed catalogues of a year or two ago were well illustrated with vegetables capitally colored; tomatoes, cabbages, beets, potatoes, cucumbers, radishes, beans, peas, corn, carrots, and melons, all of natural size, were there. Cauliflower and celery were also represented, but on a smaller scale than nature. These pages were cut out and used for the panels, while the rest of the volumes were laid away for a reference library. In many cases catalogues may be had for the asking only. To use an old saying, be sure when it rains porridge that *your* dish is not upside down.

Be Careful.—If you watch carefully the mistakes made in pronunciation by your articulation classes—and perhaps the same thing may be found in the formation of sentences by other pupils—you will note that certain mistakes are peculiar to certain pupils. One child invariably pronounces incorrectly a word on which no one else in the class fails, while another chooses some other word for his *bête noire*. Corrections may be made continually, but as often as the word is encountered, so often is it mis-spoken. The silent *w* in *write* and its derivatives is one of the hurdles over which a certain pupil fails to leap, while another thinks that if he gives the *ny* sound cor-

rectly I ought to compromise with him and allow him to give a final *g* in addition. *Gh* also stands up for its rights as a member of the alphabetic fraternity with another pupil, while still another had so much trouble in mastering the *tsh* position for *ch* that he utterly refuses to give its *k* equivalent in *school* and *ache*. The peculiarity of these mistakes is that out of ten words containing the same sounds, nine will be pronounced correctly. The boy who fails on *write* will not hesitate an instant on *wrap*. It is the common words of every-day use—the words that have been mispronounced so many times that the mistake has become chronic—that cause the trouble. Correcting after the word has been spoken only adds one more time to the habit. The rules for pronunciation the children accept in good faith, but the word under consideration is always the one exception that proves the rule. Cautioning about *alk* gives no help in dealing with *alf*, and the endeavors to corral that silent *l* in *calf* have been almost as fruitless as if it were the animal itself. *Gopher* is one of the chronic mistakes of a boy who has trapped many a one, while the number of times *union* has been pronounced *onion* would bring the tears to any eye.

To remedy this evil, at least in part, a record was made of these special mistakes, with their correct pronunciation, and, headed by the words “Be Careful” in large characters, was hung up in plain view. Now, in our reading-lessons, if any of these danger spots are approached, the warning cry “Be careful” comes from the teacher’s lips, the list is glanced at, and, for that time at least, the word is spoken correctly.

Context Reading.—In order to force the pupils to think of the context, give written exercises of sentences from which some important word has been omitted. Let it be one, however, which the remainder of the sentence will

suggest. The ability to "scientifically guess" at a missing word is of immense value to lip-readers. "The boys sold their plan, and the money they received was the beginning of their fortune" was a sentence given in speech the other morning. "One word I do not know," said a pupil. "The boys sold their plan, and the —— they received," etc. "What word do you think I said?" I asked. "It looked like month." "Would that make sense?" "Yes," was the reply—"the boys sold their plan, and the month they received it made their fortune." "Ah! but I did not say '*it*.' " The sentence was then written on the slate with the blank, and various words were suggested for it until the right one was found. Very often more than one word will be found suitable (unless the sentence was *spoken*, as in this instance), when, of course, only the original word can be allowed. When that is the case, hold a consultation as to which is the most euphonious or the best suited to its surroundings.

"*Old Glory*."—No other nation has its history so recorded in its national ensign as the United States, and, in order that the children may know the "why and wherefore" of the stripes and stars, we use for our book of instruction the flag itself. Take a small one—even 8 by 12 inches will do, provided the stars are arranged correctly—and suspend it in plain sight. It is not to be draped artistically, but spread out so that every part may be seen. In case it has not the requisite number of stars, cut out some of the same size and gum them on. This was done on our own small flag, though we had the satisfaction of having a "Regulation National Ensign" made the first week after orders were issued from Washington regarding the forty-fifth star. Then ascertain if the children know how many stripes there are. Take nothing for granted; ask and find out. You may have the same

experience as another teacher, who, upon inquiry, received the reply, "Seven stripes," the pupil supposing, as she afterward explained, that the white was only the background. On each stripe fasten a strip of paper containing the name of one of the thirteen original States. Below the flag, and attached to it, write a slight sketch of its history. The following was condensed from Malcolm Townsend's "Hand-Book of Reference":

OUR FLAG.

There is no record of its birth. It gradually grew into its present form. The first recorded "legislative action" for the establishment of a national flag was June 14, 1777: "*Resolved*, That the flag of the thirteen United States be thirteen stripes, alternate red and white; that the union be thirteen stars, white in a blue field, representing a new constellation." Officially promulgated by the Secretary, September 3, 1777.

This first "Stars and Stripes" was hoisted on Friday, Aug. 3, 1777, over Fort Stanwix—where Rome now is, in New York State.

Two more States having been admitted, it was resolved, Jan. 13, 1794, that the flag consist of 15 stripes and 15 stars. This was the National standard during the war of 1812.

More new States entering, a committee was appointed, on Jan. 20, 1817, "to inquire into the expediency of altering the flag of the United States." This committee reported "a reduction of stripes to 13, and an increase of stars to correspond with the number of States now in the Union, and hereafter to add one star to the flag whenever a new State shall be fully admitted." Pressure of business prevented action being taken.

On Dec. 16, 1817, this January resolution was again presented and finally adopted by the House on March 24, 1818, in this Act to establish the Flag of the United States:

"AN ACT TO ESTABLISH THE FLAG OF THE UNITED STATES.

"SECTION 1. *Be it enacted*, That from and after the fourth day of July next, the flag of the United States be thirteen horizontal stripes, alternate red and white; that the Union have twenty stars, white in a blue field.

"SECTION 2. *And be it further enacted*, That on the admission of every new State into the Union, one star be added to the union of the flag, and that such addition shall take effect on the fourth of July next succeeding such admission."

(Approved April 4, 1818, President Monroe signing.)

Through the gratuitous action of Capt. Reid, a flag he had constructed was completed and hoisted on Congress Hall, at 2 P. M. April 13, 1818, though the law named July 4 as the day of promulgation.

Before affixing the names of the States, have a lesson on the three great documents of the Colonies.

The Declaration of Independence was adopted July 4, 1776.

A committee had been appointed previously (June 11, 1776) to prepare and properly digest a form of confederation to be entered into by the several States. These "Articles of Confederation" were finally adopted Nov. 15, 1775, and ratified by the various States in the following order :

South Carolina, Feb. 5, 1778,	Pennsylvania, March 5, 1778,
New York, Feb. 6, 1778,	Massachusetts, March 10, 1778,
Rhode Island, Feb. 9, 1778,	North Carolina, April 5, 1778,
Connecticut, Feb. 12, 1778,	New Jersey, Nov. 19, 1778,
Georgia, Feb. 26, 1778,	Virginia, Dec. 15, 1778,
New Hampshire, March 4, 1778,	Delaware, Feb. 1, 1779,
and Maryland, Jan. 30, 1781.	

After several years' trial, the Articles of Confederation proving inadequate, a committee was appointed to frame a new Constitution for the United States. This Constitution was accepted on Sept. 17, 1787. It was ratified by the States in the order following :

Delaware, Dec. 7, 1787,	Maryland, April 28, 1788,
Pennsylvania, Dec. 12, 1787,	South Carolina, May 23, 1788,
New Jersey, Dec. 12, 1787,	New Hampshire, June 21, 1788,
Georgia, Jan. 2, 1788,	Virginia, June 25, 1788,
Connecticut, Jan. 9, 1788,	New York, July 26, 1788,
Massachusetts, Feb. 6, 1788,	North Carolina, Nov. 21, 1789,
and Rhode Island, May 29, 1790.	

The Declaration was adopted July, 1776.

The Confederation was adopted November, 1777.

The Constitution was accepted September, 1787.

We are too apt to base our patriotic lessons on the "Declaration" alone, and the children have very misty ideas of the others. Compare the order of signing and arouse a desire to know if possible why Maryland withheld her signature to the Confederation for so long a time, and why Rhode Island, which in the first month signed that document, refused to sign the Constitution until long after all the other States, and even then was forced to it by a threat of being treated as a foreign power. North Carolina had the honor of being the colony which took the first step toward independence, and Virginia gave the title to the deed. Draw out the opinion of the pupils

NATURAL LANGUAGE PLUS DRILL.—AN EXPERIENCE.

THERE is not a teacher of the deaf in this country, whatever the method he follows, who would not be glad and happy to see the eight-year-old pupils of his school using and understanding language as freely as hearing children of the same age, and able to read and to give back any written or printed language which is suitable to their years and much that seems beyond them. Whether the language came to them or from them through the lips or through the fingers, so long as it was the commonplace language of every-day life, in no wise simplified or abbreviated,—the language of the table, the play-room, the school-room, and the family,—every teacher in the land would rejoice to find his pupils in the possession of so enviable an acquirement.

A little boy of the writer's acquaintance who was eight years old on the twenty-fifth of April, 1896, has such a use and understanding of language as that indicated above, although he was born deaf, and it has been thought that an absolutely truthful account of the methods and devices which have been followed in educating him might be of interest to those teachers of the deaf who instruct young children.

In the first place, let it be understood that it is freely acknowledged that this child has had most exceptional advantages. Endowed with an unusually bright mind, surrounded by a family ideally fitted to give him intelligent help, with money enough to furnish any amount of private instruction and a residence for eight months in the year only a few blocks away from a day-school for the deaf, he has from the beginning been so circumstanced as to make possibilities for other deaf children accomplished facts for him. Next, let it be understood that no argu-

ment as to methods, no attempt to give evidence for or against any method, is intended.

And, lastly, let it be understood that an attempt is to be made, in all good faith, to give as truthful an account as memory aided by many fragmentary notes will allow, of the development of the language, and necessarily to a certain extent the mind, of a bright congenitally deaf child of eight, with whom the writer has been almost constantly associated as teacher and friend for the last three years.

For obvious reasons, names will be omitted or changed, except in the case of Miss Fuller.

Perhaps a statement of the child's present attainments may present a better *raison d'être* for what follows than any other introduction could.

On March 15, 1896, he began to tell Miss Fuller the story of his voyage to Liverpool. She stopped him long enough to take out a note-book, telling him that she would write down what he said. He was used to dictating to his teacher, and so he immediately began again, at a much slower rate, waiting for her to finish each sentence, and sometimes repeating for her if he saw her hesitate. Miss Fuller says that most of the punctuation is his, because every minute or two he scrambled up into her lap and told her where to put her periods and commas. Two or three members of the family were present and heard the story and vouched for its truth in every essential particular, except what he said about the whale. The only suggestion which Miss Fuller made was this. The beginning seemed rather abrupt to her, and when the story was finished she said, "Can't you tell me about your journey to New York, before you went on board the steamer?" In answer to the request he told the second part.

It should be explained, perhaps, that when the child makes himself an actor in a story he always speaks of himself in the third person.

Creighton laughed at the shipping because they made him

think of pirates, and by and by he went down to supper. After supper he went to bed, but he was interrupted by a noise. He looked out of the port-hole and he saw a whale going down to bed in the water, and soon Effie and Nina came into the small room, and by and by Eddie came into that room, and he looked out of the port-hole and he saw nothing, and he looked out a second time and saw nothing, and Effie looked out of the port-hole and saw nothing, and soon all the family went to bed except all the sailors and the captain, and staid seven long days on the steamship, and it went sailing quickly, as fast as a pirate ship, and on the seventh day, one morning, they saw Wales, and Creighton bobbed his head through a hole in the fence, and was going to look at the water. He felt something turn his head,* and he looked up and he saw a very large coast. At first he thought it the coast of London and Liverpool, but it was not, it was only the coast of Wales, and pretty soon Miss Blank said it was only the coast of Wales, and he saw another coast near the land, and he pretended not to know, but he whispered to himself, "That is the coast of Cornwall, and I will ask Miss Blank what is the name, and where is Jack and where is the giant." He asked Miss Blank where is Jack and where is the giant. Miss Blank said, "That is only the coast of Wales." He seized Miss Blank by the collar and pushed her down. She was half asleep. Creighton pulled her up by the sleeve and she went down to dinner with Creighton. In the afternoon, when the steamship came to Liverpool, it was in the middle of the river, and the sailors had to throw the anchor down, and as soon as Creighton got on the wharf (the name of the steamship was Etruria) he waited five minutes, because the trunks had to be fixed, and he went to the hotel. He got a cinder in his left eye, and that was the end of the ocean.

Creighton travelled in the steam cars from Boston to New York, and he had hard work to get to New York, and he had lunch at sunset. He came to New York, and then he got off the steam cars in the station, where many cars were waiting for the people. He went to a hotel named the Murray Hill, and he slept there until morning.

* An anxious relative.

Last summer, on rainy days and in moments spared from his play, he read, with intense enjoyment, "Pilgrim's Progress" and "Arabian Nights' Entertainments," regular editions, and Eggleston's "History of the United States." During last winter and spring he read of the "Color Fairy-books," the Blue, the Yellow, the Green, the Red, etc., edited by Mr. Andrew Lang, "Stories of the Bible," and a large part of the Bible itself, in which he is greatly interested, besides many of the magazines and parts of the daily papers.

That he understands what he reads, not as a grown person would understand it, but like the child that he is, the following bits of conversation will show :

At the dinner-table, one Sunday night, he turned suddenly to his neighbor and asked, "What does 'Samuel' mean?" With humiliation she confessed, "I have forgotten."

"Well, it means 'Asked of God,'" the child explained ; "you see, Samuel's papa and mamma had no children, and they were very sorry, because they loved children very much, and they asked God to give them one, and by and by He sent them a little boy, and so they named him Samuel, because that means 'Asked of God.'"

Upstairs, one night, when the small boy was supposed to be safe in bed, the family heard a gleeful laugh. Hurrying into the room, the gas was found to be turned on, and the child crowing with delight over something which he had found in the Bible. "That means *beat*," he shouted, as soon as he saw that he was not alone ; "that means *beat*." "What means *beat*?" was asked. "Outran," he answered, and then, with his finger on the text, he read aloud, "So they ran both together : and the other disciple [pronounced *diskiple*] did outrun Peter, and came first to the sepulchre." Then he explained, "There was a race, and one man beat Peter and came first to the tomb ; the tomb was a cave. *Outran* means *beat*."

Again, he came and climbed into his teacher's lap one day and said, "Where is Satan now?" The answer does not matter, since individual theological beliefs have no part in this story, but the continued questions are in place. "Where did Satan go after he had tempted Jesus? Why did God allow Satan to tempt Jesus? Was God bad because he allowed Satan to tempt Jesus?"

These conversations are reported *verbatim*. The child's mother happened to be away from home at the time they occurred, and notes were taken on her account.

Another remembered fragment will serve to show the use of common English forms. One day, while driving, he pointed to a house and said, "My old nurse lives there. One day in 1893, when I was five years old, I went to see her all alone. I staid with her all the afternoon, and when I got home, what do you think I saw?" Proper curiosity was displayed, and he went on: "Well, a great party! many ladies were there, and Effie and Nina [his sisters] were sitting in the window eating something; and then I was so angry, because I wanted something to eat myself, but they gave me some ice-cream and then I was not angry any more."

His hearer was inclined to think he was romancing, as he often does for fifteen minutes at a time; but, on inquiry, she found that his mother actually did give a large party soon after he was five, and that his old nurse did take charge of him at her own home through the afternoon, but that, owing to some misunderstanding, he was taken home too soon.

On June 2, 1896, one of his teachers (not the writer) asked him to write a story on the black-board to amuse the children while she did a little individual examining. He went to the board and, absolutely without help or suggestion, wrote the following story. Words in brackets he omitted, but when he read the story over to the teacher afterward he put them into his oral version:

Once upon [a time] a cat had two children, whose names were Tommy and Fluffy. One day their parents were away and Tommy and Fluffy got out of the home. Pretty soon they met a rat as large as they, Tommy ran away, while the rat was just going to kill Fluffy and feast on her. But Tommy's father came up and shook the [rat] till he was killed and then they played jump rope and then went to dinner.

Lovers of Oliver Herford's nonsense verses will readily recognize that this is an abbreviated prose version of "The Tragedy of Sir Rat."

The children for whom this literary composition was written did not understand it very well, and the teacher, who was interested in spite of her individual work, said that he explained it very vigorously, to her enlightenment as well as the children's.

Another story, which he wrote on the black-board one day, also gives an idea of his composition. All marks, capitals, etc., are his own :

Once upon a time there lived a comet who was the first to be born. He was called the comet master because he was the strongest and the cleverest comet in the world. One day when he was asleep he felt a sharp bite and he woke up and he saw a young comet. He was twenty years old when he saw that comet. He bit the comet and then they began to fight themselves with their tails and soon the comet said "Stop fighting me comet master for if you do many comets will be born." It was true. The end.

The source of this story is unknown to the writer. The boy was reading "Munchausen" at the time.

One more example, which was written in class, will be given. The class had had a series of lessons on the leopard, from which the boy had been absent, so when he was given a paper and told to write about a leopard this is what he produced :

ABOUT A LEOPARD.

Once upon a time there lived a leopard who had a strong temper. One day he came home he saw a lion. He was asleep.

The leopard said "Wake up." The lion woke up and he said "I will fight with you unless you have a strong temper" and the leopard said "I will make you laugh forever." The lion said "I will make you fight forever." They fought but the leopard made laugh forever but the lion could not do what he said.

The end.

These various fragments will show that the child's use and understanding of language are at least equal to those of an ordinary hearing child of eight. The specimens of written composition do not represent his best language, because he dislikes the labor of writing, and for that reason expresses himself more briefly when writing than when talking.

His mother says that his language is rather better in structure and choice than was the language of any one of her other [hearing] children at the same age.

Now, even the bright congenitally deaf children of the writer's acquaintance, which includes pupils taught by all methods, do not, after four years of instruction, received usually at a somewhat later age, have the fluent, idiomatic, discerning use of English which this child has, and, at the risk of repetition, this fact is given as an excuse for the writing of what follows.

Creighton — was born in April, 1888. Until he was twenty-two months old his family never suspected that he was deaf, so up to that age his training was precisely like a hearing child's.

When it was found that he was deaf the counsel of Miss Sarah Fuller was sought, and she advised that his education be begun at once by making every effort to attract the child's attention to the lips of those around him. She also urged the family to continue treating him as though he were a hearing child with whom special pains must be taken. From that time forward Miss Fuller was consulted at every step, and the general plan of the boy's education

is hers and the mother's, although methods and details were entrusted to teachers.

A teacher was procured for him who for eight hours a day took the place of his nurse. Her main business was to talk to him, and throughout his third year she talked to him incessantly, always striving to make him look at her lips. His sisters and brother, five and six years older than the little one, following the teacher's lead, also talked to him as they played with him. Whether the lip-motions to which his attention was so often called during that year had any definite meaning to him or not will perhaps never be known, but he certainly acquired the beginning of the habit of watching people's mouths. He learned to say and to use two words that year—"milk" and "up."

The next year the family travelled, and Creighton had no teacher, but father and mother, sisters and brother and nurse talked to him persistently. He made known his wants by pointing and screaming, or by taking hold of the thing he wanted. His family never used a sign to him, except, perhaps (no one is quite certain concerning this point), the common one of beckoning when he was wanted.

When Creighton was four years and four months old a trained teacher of the deaf was engaged for him. She lived in an adjoining town and came to him for four hours five days in the week. She was a teacher who had been accustomed to using a combination of oral and manual alphabet work, but at the request of the mother she used the oral method alone with her little four-year-old pupil. Gaining the child's confidence by games and occupations, she soon began to teach him words, working on difficult elements as they occurred. At Christmas the child could convey thought by means of spoken language. He used phrases, and his language was broken, but it answered its purpose. "By and by Christmas—papa give Effie Nina doll—papa give Eddie gun—papa give mamma pin—papa give Weighton boat," may not be very elegant Eng-

lish, but it was sufficiently intelligible to betray to the other children the father's secret plans for Christmas. The teacher taught five hundred words that year from September to June. The words were the words of the child's every-day life—of the home and the village. Judging from the book which she left for her successor, she strove especially to give the child such language as would make him more entirely a part of the home circle. But she did far more than teach five hundred words in that year; she taught him to understand pictures, to realize that any given picture is a known part of an unknown whole, and she laid the foundation for that love of books and reading which the educated deaf tell us is the source of their greatest happiness.

When Creighton was five years and five months old the family moved to the city and the boy was put into a day-school for the deaf. The plan was for him to attend school two hours and a half in the morning, largely for the sake of discipline, and to have a teacher from the school give him an hour's private instruction every afternoon. It was at that time that the writer began to teach him.

At that time he used very few sentences, but expressed his thought in phrases so as to make his meaning clear, usually. He said, "Cow in Riverdale—yes," "Two horses in Riverdale," "Cwayton cool [school] no, Cwayton home—yes," and the like. He used no pronouns, although he understood who was indicated when others used them in talking to him.

He had one question form which did duty on all occasions—"Where?" "Where papa?" he would say, using the word in its legitimate sense; and "Where wreck?" when he found the word *wreck* in a column of words in an articulation lesson and wanted to know the meaning of it; and "Where, where, where?" when he did not understand the mechanism of a toy and wanted to be taught its inner workings.

Every member of the family talked to the child. The mother and father almost invariably used whole sentences; the sisters and brothers sometimes used whole sentences, and sometimes phrases; the servants usually confined themselves to the essential words of a sentence, as "Creighton want soup?" "Effie yard," etc.

Even this limited vocabulary and scanty knowledge of language forms was sufficient to carry on the business and pleasure of life. In the morning the mother would say, "Creighton must hurry and go to school," and the small boy would answer, "Creighton cool, *no*, Creighton sick." When a teacher in the school did something which displeased him he announced at home, "Miss Blank naughty, Creighton good." When he himself was naughty he was lectured, in good English, and his shortcomings explained to him, with a threat of some definite punishment if the naughtiness was repeated, and when the naughtiness was repeated he showed that he had understood the lecture by objecting beforehand to the punishment, "Creighton chair, corner, *no*, *no*, *no*. I will be a good boy, Creighton good. Throw water, *no*! naughty, *no*; good, *yes*." The "I will be a good boy" was a memorized sentence which he always used at such a crisis; the other phrases were of his own construction. The father would say to him, "Does Creighton want to go in the swan-boats?" and the child would answer, "Where?" "On the pond in the Public Garden." "Yes, *where*?" "Down town near the Common, over there," and yet the "Where, where, where?" would be repeated until it dawned upon the father that "When?" was the question which the child wanted answered, and "Oh, by and by, this afternoon," satisfied the eager little questioner.

These details concerning the child's use and understanding of language at the age of five may seem unnecessarily prolix, but there is a reason for their length and minuteness. In the first place, it is desired that the

reader shall realize that spoken language had become the medium of communication between this congenitally deaf child and his world; that things not present were brought to his mind by speech; that by speech he expressed his wants, told his experiences, and received his moral training; and, secondly, because the condition of his understanding and his use of language seem to correspond closely to a stage which deaf children who enter schools and institutions reach during their second or third year—a stage where they are able to communicate thought readily by means of very incorrect language—language which is incorrect chiefly because it makes use of but few language forms. It is not for one moment supposed that the means found efficient in this particular case would be applicable to all deaf children, but, since in less than eighteen months from the time thus described the child was using habitually good idiomatic English, the story of how it came about may possess some interest.

The teacher made up her mind to two things; one was that never, under any circumstances, would she let her pupil see any incorrect forms, either written or spoken. All exercises in articulation consisted of English words of good repute; all composition, however great the haste, was carefully punctuated, and no elliptical forms were used unless they were such as a hearing child would hear.

A great deal of writing was done because (and this is the second thing to which the teacher made up her mind) everything that was said was written. Pages, sheets, quires, reams, were filled that year. In most cases the child read aloud what was written, but he *always* read it to himself, and he always saw it on the lips. Sentence by sentence the teacher talked to him, and sentence by sentence she wrote what she had said, and then she wrote what he said, or tried to say, supplying his omissions and requiring him to say it over again.

However much the lessons might vary with the occa-

sion, these two rules were adhered to strictly—formally correct English at all times, and a written version of all oral work. There was another rule which saved many precious minutes. The teacher worked along the line of the least resistance. If the pupil showed an invincible dislike to desk and chair, the school sat down on the floor; if a stuffed pussy-cat seemed far more attractive than any lesson, the pussy-cat immediately became pupil number two, and received half of all the instruction, while pupil number one sat behind and supplied voice for her. If the sights of the street or the back alley-way proved distracting to the attention, those sights were immediately utilized as the subject-matter of conversation. Creighton was only five that year, and he usually remarked on the teacher's arrival, "Cool, no! play, yes," so that only a good deal of apparent yielding to his wishes could induce him to take his lesson with any degree of pleasure.

Some part of the lesson-time was always devoted to articulation exercises. Miss Fuller's book containing all the monosyllables in the language was utilized the first of the year, a column of words being most carefully pronounced each day. At sight of the first unfamiliar word Creighton questioned, "Where?" He wanted to know what it meant! and, from cover to cover, he never let a single word escape him without an inquiry as to its meaning. For economy's sake, explanations were deferred until the child had pronounced all the words in the day's lesson, and then very short crude definitions of all new words were given to him. Whenever it was practicable, the words were put into sentences for him. *Art*, *ark*, and *arch* occurred in an early lesson, and a general idea of their meaning was given in some such manner as this:

$\left\{ \begin{array}{l} \text{art} \\ \text{many pictures} \end{array} \right\} \text{—Mama loves art.—} \left\{ \begin{array}{l} \text{ark} \\ \text{a very large} \end{array} \right.$
 $\text{boat} \left. \vphantom{\begin{array}{l} \text{ark} \\ \text{a very large} \end{array}} \right\} \text{—} \left\{ \begin{array}{l} \text{Noah} \\ \text{a man} \end{array} \right\} \text{ had an ark in the water. Creighton}$

has a toy ark.—^{arch} There is an arch over Helen's door.

When the articulation work for the day, which has been alluded to only because it had a language side to it, was finished, an exercise in miscellaneous language followed. Sitting on the window-sill, the teacher called attention to the incidents of the street and talked about them. On November 10, 1893, the note-book shows that the following language was written and spoken :

spāde
brôom
pick
three picks

{ hole }
{ trench }

bricks
twô piles of stones
The man is sweeping.
Two men are coming back.

mallets
The men are pounding.
They unhitched the horses from the cars.

The men pushed the cars over the trench and the horses walked around it.

Now the men are filling the trench.
Eight men.
Seven men are working.

One man has brought a long pipe.
Three more men are coming.
One man went away.

Here comes a girl with a box.

The horses walked over the trench. They did not go around it.

Many men are working.

School.

All right.

You wrote black. I wrote white.

The men have almost finished.

Feel the air!

This language was occasioned by observing some men laying new tracks in front of the house. The pupil called attention to such things as interested him, using the words he knew, and saying "Where?" when he had no language to express his thoughts, as "Where, horses, cars?" when he wanted the language concerning the unhitching of the horses.

After fifteen or twenty minutes spent in thus talking about the happenings of the day, a reading-lesson followed, sometimes from a primer, and sometimes from a specially prepared written exercise, or from one written on the spot, to further illustrate a language form used during the writing of the miscellaneous language.

A Reading-Lesson.

Birds fly.	Boys play ball.
Fishes swim.	Girls play with dolls.
Dogs bark.	Babies cry.
Cats mew.	Mammas love.

Another Reading-Lesson.

A baby sleeps in a bed.	A horse sleeps in a stall.
A bird sleeps on a tree.	A hen sleeps on a roost.
A dog sleeps in a barn.	A fly sleeps on the wall.

Such a reading-lesson as either of the ones given always gave rise to more miscellaneous language, and the child was allowed to express himself just as freely as he chose, and to make all the inquiries that seemed good to him.

When he was ready for a change the sugar-plum of the whole lesson was administered to him. He sat down on the floor and had pictures shown to him. Picture-books, all the Brownie books, *Puck*, *Judge*, and *Life*, *Harper's*, *The Century*, *The Review of Reviews*, an illustrated Bible or an illustrated Shakespeare, it mattered not what, so long as there were pictures to look at and talk about.

The child, like other children, was especially fond of

animals, and many of the earlier picture talks were about wild animals. Three lessons (?) on three animals may serve as types of the daily lessons of that year.

With a picture of a polar bear before him Creighton inquired, "Where polar bear?" Supposing him to mean, "What is a polar bear?" the teacher said, "A large white animal that lives far north." "Where north—down town?" "No; north is that way" (pointing), "and the polar bear lives far, far, far north, where it is very cold. There is snow on the ground all the time, deep, deep, deep snow, and the water is frozen."

"Yes—What is that?" pointing to a picture of an Eskimo. ("What is that?" was a question which he learned to use the previous year, and when he wanted to know the name of an object, he almost always said, "What is that?" but when he wanted information other than the mere name, "Where?" always did duty.)

"That is an Eskimo." "Where Eskimo?" "The Eskimos are the people who live in the far north." "Where people?" "People are men and women and children." "Yes; polar bear eat Eskimo?" "No; the Eskimo men hunt for polar bears." "Where hunt?" "Run very fast with long knives and try to kill." "Yes; Creighton Eskimo, Miss — polar bear; run, run, run!" and then would follow an exciting bear chase upstairs and down, until the polar bear, in the person of the teacher, was captured and slain, and the small Eskimo was entirely worn out.

One day the pictures were all cat pictures. The small boy announced, "Miss — will be cat, Cwayton will be mouse; run, cat." The cat was pretty active that day, and the mouse victim soon rebelled. "I will catch you!" he remarked. "Oh, no, you cannot, dear; a mouse cannot catch a cat." He thought, and thought, and then all at once he solved the problem in a way very satisfactory to himself. "You will be cheese," he said; "run, cheese!"

The teacher could not believe that the child knew what he was talking about. She made him write on the black-board, and he wrote, "You will be cheese," explaining further, "A mouse will eat cheese; run, cheese!" The cheese ran.

Another day a picture of a camel approaching an oasis in a desert formed the topic of conversation. The teacher told him that the desert (touching with her finger here and there over the picture) was *sand, sand, sand, sand*. "Many, many sands," remarked the small boy. The teacher gave the expression "A great deal of sand" hurriedly, and went on to say, "There is no water in the desert. It is very hot. The people are very thirsty. They ride on camels. By and by they see green grass and water." "Where water?" interrupted the eager listener. "The water is in a very small pond," she explained. "Yes, pool," he answered. "Where?" which meant "Go on." [The meaning of the word *pool* had been taught in connection with the articulation work in the monosyllable book.] "The Arabs are very glad when they see the oasis." ^(People in the desert) "Where oasis?" "A place in the desert with grass and water and trees. The camels are very glad. The Arabs and the camels drink a great deal of water." "Yes, many, many waters." "Sometimes a caravan comes to the oasis." (Showing a picture of a caravan.) "Where caravan?" "Many people and horses and camels."

That the child gained something from such lessons as these is shown by the fact that he constantly made use of the words which he learned in them. For instance, walking out in a crowded city square one day he looked at the cars and people and said, "Veddy large caravan—where camels?" "There are no camels here, Creighton; the camels are far away in the desert. Do you know what the desert is?" "Yes; many, many sand; no water; many Arabs thirsty; many camels."

These lessons have been thus dwelt upon at length in order to show how language served to teach language ; how unknown things were presented to the child by means of pictures and words which were within his comprehension, and by no other means.

As the need for common verb forms occurred the teacher planned lessons to illustrate their use. A lesson or a game of April of that first year will serve to show how common verbs were used. The teacher was Noah and the pupil was Noah's little boy, and everything was acted.

The Lesson.

There were many, many pairs of animals in the ark.

Noah led a pair of elephants into the ark.

(The "ark" was under the bed, and the elephants were wooden toys.)

He caught a pair of tigers and led them into the ark.

He took a pair of lambs in his arms and carried them into the ark.

He put two mice into his pocket and carried them into the ark.

He went to the jungle for two lions and led them into the ark.

Noah's little boy went to Africa and got two crocodiles and put them into the ark.

Noah's little boy chased two deer and caught them and put them into the ark.

It rained for many, many days.

The ark floated and floated.

By and by the rain stopped and the water went away.

Then Noah and Noah's little boy and the animals came out of the ark.

Early in June the family moved to the country, and Creighton had no more direct instruction until the following October.

The following list of topics shows, after a fashion, the range of the child's thought that second year, thought

which he expressed in such broken language as has been indicated. The list is only a partial one, since many notes have been lost :

Balloons,	Camels,
Caves,	Arabs,
Grizzly bears,	Indians,
The Rocky Mountains,	Battles,
Eskimos,	Camp-fires,
Polar bears,	Soldiers,
Icebergs,	Memorial Day,
The walrus,	Fourth of July,
Africa,	The State House,
Crocodiles,	Policemen,
Black men,	Tramps,
Palm trees,	War-ships,
Monkeys,	Whaling-ships,
Elephants,	Whales,
Tigers,	Harpoons,
The jungle,	Sailors,
The desert,	Wrecks.

When Creighton resumed his lessons in October (the October after he was six), it was found that he was beginning to make sentences of his own accord. His brother and sisters had talked to him all that long vacation, using sentences as a matter of course, and he had learned some of the commoner forms from them.

"I want to go upstairs."

"I do not want that."

"Where are the children?"

"May I have some apples?"

His wishes and objections he expressed in sentences, but his more complex thoughts he still expressed in a broken way.

The teacher, in thinking over the afternoon work for the year, resolved to make every effort to have her pupil learn to use complete sentences habitually.

Creighton attended school three hours a day that year,

and received drill in language and number, but two long periods of illness caused him to be absent for several months, so that he really received the larger part of his instruction at home.

Three or four primers, such primers as hearing children use, were read that winter. The little boy would read a story through aloud, interrupting himself frequently with *Why* and *What for*, two question forms which he had learned to substitute for the previous year's "Where?" The teacher wrote out each of his questions in proper form, made him repeat it, and then answered it, orally and on paper. When the reading was finished she asked him every question she could think of, helped him to answer the ones for which his own language did not suffice, writing everything as before, and then, handing him the paper, let him ask her all the questions she had asked him. Usually she gave him the correct answer, although not necessarily the answer which was on the paper; but sometimes she gave one which was entirely wrong, calling forth a torrent of censure from the watchful little interrogator.

All the time-honored questions, the "How many?" the "Where?" "Who?" "To whom?" "Whose?" "In what room?" etc., etc., etc., were taught to him that year, but not scientifically. A desire for certain knowledge was *not* aroused in him, and then the language form which would properly express his desire was *not* given to him. A very patient effort to teach him question forms that way was made, and only ignominious failure resulted. He was invariably more interested in something else than in the elaborately prepared objects. So, instead, the teacher asked him questions. "How many horses has papa?" "Where is your cow?" "Who gave Eddie his big ship?" "To whom does the little bicycle belong?" "Whose flowers are those?" "Whose room is this?" "Whose room is that?" "In what room do you eat?" etc.—questions, usually, the answers to which were not certainly

known to the questioner. Creighton answered the questions willingly; sometimes he wrote the answers, but oftener he only spoke them, and then he took the paper and "interpreted the role" of examiner.

At the end of a week of such work the child began to use the question forms a little, at the end of a fortnight he used them incessantly, and from that time forward he dropped the "Where?" and "Why?" and used question forms with constantly increasing accuracy. At least once a week he had a regular question lesson, in which the teacher asked the questions as described above, and, besides, a multitude of questions came up incidentally.

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[TO BE CONTINUED.]

TEXT-BOOKS IN HISTORY.*

A RECENTLY published volume contains a most readable essay from the facile pen of Mr. Frederick Harrison, entitled "Some Great Books of History." In this article the author kindly sets up for us a series of guide-posts with index fingers pointing "This way to Egypt," "This way to Greece," "This way to Rome," and so on. He shows us no new paths, but only the old, well-worn highways by which unnumbered pilgrims have sought and found the shrines at which the centuries have worshipped. This essay was not written for the learned few who live in libraries, but for men and women making no pretension to scholarship, yet knowing enough of history to want to know more. It is admirably adapted to the needs of that class,—if one may be permitted to give a judgment based on personal experience. The reader rises from its pe-

* Read at the Fifth Summer Meeting of the American Association to Promote the Teaching of Speech to the Deaf, held at the Pennsylvania Institution, Mt. Airy, Philadelphia, July 7, 1896.

rural with a determination to know many of the old, standard histories with which he has had before only a passing acquaintance. Especially strong is his resolution that before he is six months older he will have made his own every page of Gibbon's monumental work. Hear one or two of Mr. Harrison's fluent sentences:—"It is no personal paradox, but the judgment of all competent men, that the *Decline and Fall* of Gibbon is the most perfect historical composition that exists in any language: at once scrupulously faithful in its facts; consummate in its literary art; and comprehensive in analysis of forces affecting society over a very long and crowded epoch. In eight moderate volumes, of which every sentence is compacted of learning, and brimful of thought, and yet every page as fascinating as romance, this great historian has condensed the history of the civilized world over the vast period of fourteen centuries."

In thus presenting himself in the winning aspect of guide, philosopher, and friend, Mr. Harrison has earned our sincerest thanks. Only one thing remains for him to do to conquer our hearts completely. What we teachers desire now with indefinite longing is a supplementary essay of the same general character on "Some Little Books of History." Would we not set up a statue in the market-place to the man who should name to us something within the comprehension of our pupils of which he could say, "It is scrupulously faithful in its facts, consummate in its literary art, with every page as fascinating as a romance—condensing the history of the civilized world over the vast period of fourteen centuries"?

One should not allow himself to indulge in a dream like this; the waking is too painful. It is like coming back to consciousness after a vision of water-brooks in the desert of Sahara. We have a great quantity of juvenile historical literature in the form of stories, but this is not enough. To do the best work in history a child needs

something besides detached stories. He must have a clear, consecutive outline as a foundation. One great fault in teaching, which is constantly forcing itself upon the attention of our most thoughtful educators, is that much so-called "supplementary work" supplements nothing. In reply to those persons, and we have met such, who claim that enough general history may be learned in our schools by reading miscellaneous story-books, we quote from the carefully considered report of the very scholarly body of men who composed the "Committee on Secondary School Studies," appointed three or four years ago by the National Educational Association: "Since the text-book is, and ought to be, the centre of the study of history in schools, a good text-book is essential."

We would not be misunderstood here. Most assuredly we are not undervaluing outside reading. A pupil should be encouraged and expected to read scores and scores of volumes in connection with his historical study. Such reading is delightful, and a child cannot fail to be the better for it even though he does no systematic work at all, but not nearly so much the better as he would be if he had some idea of the relation of his different scraps of knowledge to each other.

We are in possession of some simple outlines of United States history which are fairly well suited to our needs, and so well-known that it would be superfluous to speak of them here; but beyond these what have we? Text-books by the score, to be sure, and some pretty good ones; but, alas! those which are really satisfactory are a little above the reach of our ordinary pupils in the grade where we wish to introduce something beyond United States history. And, in regard to the wisdom of beginning the history of foreign nations at an earlier period than is common in some of our schools, we are glad to find that our own judgment has the sanction of the high authority just cited. The Committee of the National Educational Asso-

piller, but an original scholar whom it becomes every ordinary ignoramus to speak of with respect. The difficulty in his case was that he could not quite realize the utter vacuity of mind of the average school-boy, so far as historical knowledge is concerned. He assumed that the daily life of the Romans, with which he was as familiar as he was with that of the citizens of Madison, Wisconsin, must be tolerably well-known by everybody who could read a book, while it was just possible that the exact powers of the Court of Repetundæ and the precise nature of the Terentilian Rogation might require a little elucidation. Hence he produced a text-book for the boys and girls in our common schools which is admirable as an elementary treatise on Roman law and administration, but is almost wholly lacking in a record of social customs and manners.

It is, on some accounts, a great pity that in the economy of nature it is impossible for a profound and universal scholar to be at the same time a man of extremely narrow range and limited information. From such a combination—a sort of Jekyll-Hyde historian—we might look for a good text-book. The ignorance of one partner would constantly serve as a suggestion to the other to show him what he ought to do.

Merely glancing as we pass at Anderson's General History, which certainly commends itself by its numerous tabular reviews, Freeman's dreary skeleton, Swinton's curious patchwork, Barnes' heterogeneous mass of fact and fiction (why a history should be known by the name of its printer rather than that of its author is not clear), and many others of more or less merit, but none of them just what we want, we come down at last to a book which was not written for advanced students but for the veriest babes and sucklings. Peter Parley's History of the World, with which the most venerable of us was familiar in his childhood, still has a place as a regular text-book in some

of our best schools. There are indications that this work was actually produced under the "combined system" which a moment ago we thought desirable but impossible. If so, our theory of its desirability, as well as that of its impossibility, is speedily refuted. Whatever may or may not be true of other combined systems, this one does not seem to work quite so well as it was expected to. We did not take into account the dire possibility that it might be Mr. Hyde himself who would occasionally hold the pen.

I know it seems rather unkind at this late day to arraign the good-natured prattler who prepared mental pap for the babes of fifty years ago, but he has been so long in the enjoyment of the blessedness of the saints that our strictures—agitating as they would doubtless have been a half century earlier—will not probably disturb him very greatly, and in taking an inventory of our present stock his book necessarily comes under our notice. That a book like this is still given to classes by some of our ablest teachers is the strongest proof of the fact to which we are now calling attention, that our poverty in this department is deplorable.

Let us look for a moment at some of the stuff which this instructor of children brings forward out of the stores which the ages have treasured up for his use. We open to his chapters on Greek history to see what he has to say about that marvellous civilization which has been the wonder and delight of the world. His discussion of the literature of Greece begins with this pleasing sentence: "The Grecian philosophers were men who pretended to be wiser than mankind in general," which would seem well adapted to guard a child against undue veneration for such humbugs as Plato and Socrates. Still further to secure him from falling into this snare, and to present great historical characters and events in their just proportions, Socrates himself is disposed of in exactly three lines, while half a page is devoted to narrating gravely the mythical story of

the self-cremation of Empedocles. There is valuable and well-authenticated history for you! And, to be consistent throughout, our veracious historian presents as "a foolish old man" this personage whom Symonds characterizes as one who "has left to posterity the fame of genius as a poet, a physician, a patriot, and a philosopher." The poets do not fare much better. Hear this: "The Greeks were in many respects very ignorant, and entertained many absurd notions. They did not know that the earth is a great globe or ball, that it turns round every day, and that the sun, moon, and stars are also great worlds moving about in the sky. You would not, therefore, expect in their poetry to find any useful information about geography or astronomy." Now our little Tommy has no more doubts in his own mind about the Copernican theory than he has about the Apostles' Creed, neither of which appears to have been properly understood by those benighted old Greeks. So from his coign of vantage Tommy may very well look down with supreme contempt upon Homer and Sophocles, and reserve his meed of admiration for the less "ignorant" poets of our enlightened age, whose verses he may expect to find perfect treasure-houses of "useful information about geography and astronomy."

Does some one say, "Well, you can skip all that"? Unquestionably you can. There is not the slightest doubt as to the possibility of that feat. The point here is that there are altogether too many chapters of which the best thing you can say is that they may be skipped.

Of course we have seen some of the worst of the book. There are parts which may be studied with profit, and the phraseology taken right through is clear and simple, so it is still found in the school-room. We venture to hope, however, that before very long its place will know it no more.

We turn from this rather disheartening survey of what we have, to consider a little what we desire. Many ele-

ments enter into that rare combination, a good text-book in history. The choice of topics in such a book and their general treatment are subjects too broad for discussion here, and we must leave these for some one with more time and more ability at his command, but some of the minor points which we may notice are the press-work, the introduction of proper names, the management of dates, and the employment of maps and tabulated statements.

A strongly marked subdivision of chapters into paragraphs and the use of what I believe the printers call "full-faced" type for a caption to give the subject of each paragraph are very common now and every way desirable. Beyond this, a fashion is creeping in, which we hope may become prevalent, of putting all important proper names in the same striking type when they first appear in the narrative. This method of emphasizing a word is much more effective than the old one of using italics. The possibility of smuggling a vast amount of information into foot-notes in painfully small type offers a terrible temptation to the historian, but smuggling in any form is an "illicit process," a thing as reprehensible in a historian as in a logician. The pages of a school-book should be clear and open, although this involves a larger and more expensive volume. There is a closer connection between clear print and clear ideas in the mind of the reader than is always recognized.

A failure to give the name of a person who is incidentally spoken of is a common defect in many text-books. Of course, we do not mean that such a name should always be given, but that it should never be omitted when it is one which is written in gold letters on the general roll-call of Fame. To illustrate, we give a sentence from Barnes' History:—"Henry the Eighth had written a book against Luther's doctrines, for which he had received as a reward from the Pope the title of Defender of the Faith." Now, this Pope, as we all know, happened to be one of the

most illustrious princes that ever sat on the papal throne, a man who impressed himself upon the age almost and perhaps quite as strongly as did either Henry the Eighth or Martin Luther. Our author should not have lost this opportunity of associating his name with the names of the great German preacher and the great English monarch. True, there is a little sketch of him elsewhere in the book, but that is only another reason why he should have been brought forward again when it could have been done so easily. If he has a wise teacher, a child's second interview with a great historical personage counts not only for what it is worth in itself, but also for the full value of the first one.

There has been so much said, and said so justly, against that teaching of history which consists mainly in crowding a child's brain with numerals that we are now in no little danger of going to the other extreme. To lay a foundation strong enough to encourage one to raise a superstructure thereon after school days are over, one must learn a good many dates, and it is even more imperative that he should acquire the habit of noticing dates which he does not commit to memory. A text-book should give a good many more than any judicious teacher would require a child to learn, just to help him, while he is studying, to get a clear idea of the sequence of events. Many of them may be enclosed in brackets, or perhaps, better still, be put in the margin, but they should be somewhere. Here many books are greatly at fault. It would seem to be the opinion of their writers that figures mar the beauty of a printed page, and are to be avoided as skilfully as possible, and some authors appear to think that a date is a date, and one is as good as another. We find a case in point in Montgomery's "Leading Facts of French History," a book so inferior to his "Leading Facts of English History" that it is hard to see how the two could be the work of one man. In glancing over this volume there seems to be

a pretty fair sprinkling of figures, but a careful examination often leaves one at a loss to understand the principle on which they were selected. For instance, probably everybody would grant that the year 1806 was, as Guizot says, one of "unequalled splendor" in the history of the First Empire. On his return from his victorious Austrian campaign Napoleon was hailed in Paris as little less than omnipotent, his brother Joseph was made King of Naples, the republic was overthrown in the Netherlands, and the Kingdom of Holland was established in its place with Louis Bonaparte on the throne, and this year, also through the instrumentality of Napoleon, there came to an end the oldest existing political institution on earth, an institution which had lasted more than a thousand years, and had exerted an incalculable influence on the whole civilized world. Mr. Montgomery does not fail to record these events, but in the paragraph in which they are chronicled there is no reference, direct or indirect, to the time when they took place. To be sure, if we "look before and after," as Shelley gives us to understand that poets at least are in the habit of doing, we may get at the year; but unfortunately school children do not seem so much addicted to looking before and after as we are led to suppose that the poets are.

In another place in the same book we find a long paragraph with nothing to show just what time is under consideration, and this is followed by another beginning with "Meanwhile," this with one which starts off with "Meantime," this is succeeded by "Finally" and this, rather unexpectedly, by "The year following." When we have reached this point we are in a state of perplexity not unlike that of one of our pupils who inquired not long since, "Where *is* elsewhere?" and are ready to cry out, "When is meantime and meanwhile?"

As an offset to such a tantalizing book it is a pleasure to call attention to one which in this very respect is espe-

cially commendable. In its management of dates, and also in many other things, one finds an almost model school history in the "Introduction to the Middle Ages," by Ephraim Emerton, Professor of History in Harvard University. In this book dates are occasionally incorporated in the text, but more are in the margin, and of the latter those which are to elucidate the narrative but not necessarily to be committed to memory are in common type, while those which are to be learned for a lifetime stand out more boldly. We may be very sure that Professor Emerton would never have allowed the year 1806 to glide along down the stream of time unnoted. Taken altogether this is a delightful little book. While it is so scholarly that it is used as a text-book in many colleges, it is at the same time so simple in its diction and style that many of our older pupils read it with great interest and profit. In my last class two boys—not semi-mutes either—liked it so well that they considered it a good investment for some of their own spending money. Indeed, if any one, not over-wise, likes to read a very plain story of the four or five eventful centuries which saw the great barbarian migrations, the overthrow of the empire of the Cæsars, the rise of the monastic system of the west and the development of papal policy, the birth and wonderful growth of Islamism, the beginnings of feudalism and the establishment of the vast empire of Charlemagne, I hardly see myself how he could invest a dollar to bring him a larger return. Our only regret is that our limited time for the history of the whole world does not allow us to spend so much on the period, fascinating though it be, which Professor Emerton has chosen; otherwise we would devote a term to his book.

While insisting as we have done, and only wish we could do more strongly, on the importance of dates in historical study, and the imperfection of a text-book which does not abound in them, we should be very sorry to

leave the impression that we would make a recitation in history a mere repetition of numbers. For reasons which are sometimes best known to herself, there are certain numbers especially dear to the Muse of History, but we feel sure that Clio herself does not believe the most important truths of history to be those which may be expressed in figures. She holds years and centuries and even human life itself as matters of so little value in comparison with the triumph or defeat of a great principle that the exact amount consumed is not the thing of chief consequence in her eyes. It is the triumph itself which men and angels might rejoice over, or the defeat which seemed at the time to be a death-blow to human progress, that she would record in unfading characters. We would follow her wise guidance, hence the dates made prominent in a child's mind should be to him as Lowell said words were to Emerson,

“Like gold nails in temples to hang trophies on.”

It is just because the trophies are so surpassingly glorious that they must not on any account be suffered to fall together an indistinguishable heap in the dust.

The late Professor Whitney, of Yale, once said, in reviewing a certain work, that the publication of a book of that kind without a good index should be a penitentiary offence. The publication of a school history without good maps is equally heinous. Sieges, battles, triumphal ceremonies, cradles, sepulchres, and so forth, are uncomfortable things to meet floating around in space. They should be pinned down where they belong, and kept there.

A good text-book in history will contain a great many tables of all sorts and kinds. Genealogical tables are indispensable. Besides showing clearly how important a factor heredity has been in the governments of the world, one of them will often in the flash of an eye make definite what was before very hazy in regard to a disputed succession or some other point upon which much turned.

Lists of contemporaneous personages of different countries are also valuable after a pupil has learned something of the individuals named. They help to keep each one in his proper environment.

Analogous to such a list, and an equally excellent feature in a text-book, is a table of contemporaneous events. Of course we do not mean that a child should take this, or any of these tables, at the outset and commit it to memory, but it is very suggestive as a review. St. Paul's saying that "none of us liveth to himself, and no man dieth to himself," is no truer of men than it is of nations, and a student of history should begin very early to recognize their interdependence and to look from one to another to see how each is playing its particular part in the special act of the world-drama then going on before him. Such a habit of study will be developed by frequent reference to tables like those of which we speak now. It is sometimes surprising to see how many subjects can be grouped together. A date will often serve as the most patient of pack-horses and carry a tremendous load. Take, for instance, 1483. In that year in England died Edward the Fourth, the ruthless warrior and subtle politician who throughout a reign of twenty-two years had been laboring to free the Crown from the control of the baronage, and had been silently laying the foundation for the absolute rule of the Tudors. In that year in France died Edward's enemy, Louis the Eleventh, another great king and a terrible, more subtle, more cruel, than his English contemporary, who throughout a corresponding reign of twenty-two years had also been laboring, and with even greater craft and more success, to reduce the power of the feudal barons and to bring all classes in the kingdom into unquestioning subjection to the Crown. That year saw the murder of the two royal children in the tower, the accession of Richard the Third to the throne of England, and that of Charles the Eighth to the throne of France.

In 1483, in Spain, Torquemada was made Inquisitor-General of Castile and Leon, which event marks the establishment of the institution that became such a mighty force in the Catholic reaction of the next century—an institution which according to the infallible authority of Pope Paul the Fourth “was founded by the inspiration of the Holy Spirit,” but which by the heterodox mind of the nineteenth century is generally ascribed to a different agency. But while the Spanish Inquisition was developing its dreadful power, in “the armoury of God” a weapon was being forged for its destruction; in 1483 Martin Luther was born.—It is good to close this record that suggests so much of guile, treachery, strife, and infernal wrong, with a name which reminds us that, after all, around and above this troubled life of ours there broods an everlasting calm. Of Dante it was said, “This man hath been in Hell and hath returned;” of this other man it might have been said, He hath been in Heaven and hath come back to reveal to mortal gaze something of the infinite blessedness and the supernal peace of Paradise. In 1483, in a little city hanging on a spur of the Tuscan Apennines, a child was born who was destined to people the earth with his divine creations and to give to humanity the conception of spiritual beauty which had presented itself to the enraptured soul of Raphael of Urbino.

After a child has learned these different facts, it will greatly help his memory if he occasionally sees them in a group with their common date, and, paradoxical as it may appear, he will remember half a dozen much more easily than he will one.

Is it said that it is of no consequence whether or not he remembers just when any man was born or died?

We grant it willingly enough, but suppose our imaginary interlocutor will be as ready to admit that it *is* desirable for any student of history to have general ideas

of the time of the decay of feudalism, the birth of Protestantism, and the beautiful blossoming of Italian art, and that general ideas have a very uncertain hold upon the mind of a child unless they are clinched pretty firmly with a few particular ones. In the case just given, the different events may not be the ones we would have chosen separately, but they were kind enough to occur in the same year, and we can make them serve as reminders of much more. We must not ignore the fact that we live, as the late Walter Pater remarked, "in a world where, after all, we must needs make the most of things."

Another and perhaps better illustration is found when we come to the great landmark, 1492. A few months before Columbus started on the voyage which was to result in the discovery of a new world, another great Italian, a native of a city not far from Genoa, set sail on a vaster sea and for remoter shores. The land to which he journeyed is now, as then, an undiscovered country. In that memorable year died Lorenzo de' Medici, whose name recalls to every mind the splendor and the majesty of Florence. In the limited space of the school-books now under consideration, there is not much room for mediæval Italian history, but they all give more or less of it, and in any such study a prominent place must be allotted to the imposing figure of Lorenzo the Magnificent. The common though sometimes discredited story of his asking for absolution on his death-bed, of the stern refusal, and of the passing of his unshriven soul, introduces another actor, the monk Savonarola, whose tragic history leads one's thought to the papacy, and we remember that in the year 1492 Alexander the Sixth succeeded to the throne. Turning to the nation which sent forth the great discoverer, we find that there the year 1492 was ushered in with rejoicing. On the sixth of January, the great festival of the Epiphany, King Ferdinand and Queen Isabella, with white-robed ecclesiastics and a great host of victorious warriors,

made their triumphal entry into Granada. There they proceeded to a mosque which a few days before had been consecrated as a Christian church, and chanted a solemn *Te Deum* in recognition of the Divine assistance which had enabled them to elevate the Cross in place of the Crescent and to drive out from this stronghold the execrable Moslem, whose impious worship had desecrated the peninsula for eight hundred years. The very next page in Spanish history gives us one of the most pathetic stories in the annals of any nation. Three months had not passed by when the Inquisitor-General, Torquemada, terrified King Ferdinand into the belief that in tolerating in his kingdom the presence of the accursed Jews he was crucifying afresh his Divine Lord, and a royal edict went forth for their immediate expulsion. Then followed that heart-breaking exile from their native land of two hundred thousand souls, driven forth with circumstances of unutterable cruelty, only to endure new sufferings from shipwreck, pestilence, and starvation.

It is idle to multiply these illustrations. No one who is in the habit of browsing in the pasture-lands of history will be at a loss to recall the exact position of a good many of these especially fertile hillocks. A text-book, however, is designed for those who are traversing these fields for the first time, and it should not fail to provide an abundance of waymarks, pointing out locations to which these youthful pilgrims may well return again and again.

So much for the question of what we want, and now follows that most practical one, how are we going to get it? Text-books of this kind will be prepared when the weighty recommendation made by the Committee on Secondary School Studies is acted on, as in time it undoubtedly will be, and "the history of other countries" becomes a part of the grammar course of our public schools. But why should we wait till then? We are al-

nourishing. The man who is instrumental in making this study a favorite one in our lower grade schools could hardly render greater service to the cause of true education, for the marvellous pipe of the Hamelin magician was no more potent to draw the children after him than is an intelligent and abiding love of history to lead them away from the flats and wastes and malarial fens of literature out toward the great open fields where the air is pure and life-giving and the harvest truly plenteous, fields wherein they may gather for themselves "fruit that is better than gold, yea, than fine gold."

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SCHOOL ITEMS.

Columbia Institution.—The Hon. J. Randolph Tucker, formerly a prominent member of Congress, of late a professor in Washington and Lee University, and for the past fifteen years an efficient and beloved director of this Institution, died on the 13th of February last. The Hon. William L. Wilson, late Postmaster-General, now President-elect of Washington and Lee University, has been chosen to fill the vacancy in the Board occasioned by Mr. Tucker's death.

The present year is the fortieth anniversary of the existence of the Institution, as it was incorporated by Congress in an Act approved February 16, 1857, and the school was opened June 13, of the same year. Of the first officers of the Institution only three are now living, viz: Dr. Edward M. Gallaudet, then Superintendent, since 1864 President, still young except in years and not very old in years; Mr. James Denison, then teacher, since 1870 Principal of the Kendall School; and the Rev. Dr. Byron Sunderland, one of the incorporators and still a member of the Board of Directors. The frontispiece of this number of the *Annals* is borrowed from a beautiful souvenir of the anniversary of the incorporation of the Institution, presented to the guests at a dinner given by President and Mrs.

Gallaudet to the present and former directors and their wives. The upper picture shows the frame building first occupied in 1857, which also served as the first building of the College in 1864. It stood on nearly the same site as the portion of the central building shown in the lower picture, which was completed in 1870.

Florida Institute.—Mr. Henry N. Felkel, who had been Principal of the Florida Institute since 1893, died on the 11th of February last, after an illness of six weeks. Mr. Felkel was born in Florida in 1850, and was educated at the West Florida Seminary, where he was afterwards a teacher. Later he was principal of the Tallahassee public schools, of the Leon Academy, and of the State Normal School at De Funiak Springs, resigning the latter situation to become Principal of this Institute. He was an educator of ability and influence, but labored under the disadvantage of having had no special training or experience in the education of the deaf.

The Rev. Frederick Pasco, of Jacksonville, Florida, has been elected to the vacancy caused by Mr. Felkel's death. The *St. Augustine Daily Herald* says that "his life-work has been devoted to the cause of education," and that "he is eminently qualified in every respect to fill the position to which he has been called."

Horace Mann School.—The "Parents' Association" connected with the School have raised funds to procure a memorial tablet in honor of Francis Green, the author of "*Vox Oculis Subjecta*," to be placed in the building of this School in honor of his pioneer efforts in America in behalf of the education of the deaf.*

Indiana Institution.—The governor of Indiana has taken a step in the interest of good government for schools for the deaf that we should be glad to see followed in other States. The Board of Trustees of this Institution is composed of three members, who have shown themselves faithful and efficient in the performance of their duties. Their term of office having expired, the governor has reappointed them, though a majority of them belong to the political party not now in power.

*See the *Annals*, i, 188 190; xii, 258; xiii, 1-8; xiv, 67; xxxiv, 221.

Missouri School.—A bill has been introduced into the legislature to change the name of the School from "The School for the Deaf and Dumb" to "The Missouri School for the Deaf," as recommended by the Superintendent in his recent report.

Virginia Institution.—Mr. Harvey D. De Long, teacher of the high class, died in Baltimore March 20, 1897, of appendicitis, aged 29. Mr. De Long lost his hearing from cerebro-spinal meningitis at the age of five, and was educated at the Pennsylvania Institution and Gallaudet College. In college he was distinguished throughout the entire course by his courteous manners, high scholarship, and excellent character. He was graduated in 1893, standing first in the largest class that has gone out from the College. In October of that year the board of directors of the Virginia Institution decided to form a new class, to be known as the high class, and Mr. De Long was elected teacher of it. He performed the duties of this office faithfully and satisfactorily, and taught his class until two days before he was taken to Baltimore for a surgical operation, which was immediately followed by death. Mr. De Long was married in 1894 to Miss Lily A. Bicksler, also a graduate of the Pennsylvania Institution and Gallaudet College, and, like him, the valedictorian of her class in college. She survives him with one child.

ADVERTISEMENTS.

WANTED, by a lady with some experience as a teacher, a position in a deaf-mute school, or as governess to a deaf-mute child. References given. Address H. E., 146 42d St., New York City.

WANTED: A position as art teacher, to teach drawing, charcoal drawing, oil and water painting, and china painting. Good at needle-work and can use the manual alphabet rapidly. Good reference given. Address L. Charlen Vanderoef, Montgomery, Orange County, New York.

AMERICAN ANNALS OF THE DEAF.

VOL. XLII, No. 4.

JUNE, 1897.

CHARACTERISTIC ERRORS OF PUPILS.

THE title of this article was suggested by the results of a mid-term examination, and most of the matter was obtained from a perusal of the examination papers. This was supplemented by experience in the class-room, and by observation of the work of deaf children of varying grades through a period of years.

I shall first consider the characteristic errors pertaining to language work, and these, for the sake of convenience, I shall divide into (1) Errors of Form, and (2) Errors of Construction.

Errors of Form.—Under this head I would include all those minor errors noticed in pupils' written work, that have no relation to ignorance of language, but concern mainly the appearance of the work. The more common of these errors are—

- Lack of paragraphing,
- Misuse of capital letters,
- Crowding words at the end of a line,
- Dividing words wrongly at the end of a line,
- Use of abbreviations,
- Various errors of punctuation, including
 - Misuse of the comma,
 - Omission of the period,
 - Misuse of quotation-marks,
 - Carelessness and indistinctness in making the marks of punctuation.

Lack of paragraphing is a fault that is traceable to the earlier years of the pupil, when all the language work consists of short sentences, and the tendency is strong to begin every sentence at the boundary line of the black-board, slate, or paper. It looks all right so long as none of the sentences exceed a line in length, but when the pupil begins to write sentences in sequence, so as to form several lines, or, later, when story and composition writing is begun, the absence of paragraphs is displeasing to the teacher who is fond of neat and orderly work. The remedy lies in care on the part of the teacher to insist on paragraphs as soon as sentence-writing in sequence is commenced.

The misuse of capital letters to which I refer is a fault of penmanship. There is too little distinction between capitals and common letters, as many pupils make them. The accepted rule in penmanship is that the capital letter shall be three spaces high to the common letter's one. It would hardly pay to require a too rigid adherence to this rule, but a distinct difference can be obtained, and should be insisted upon. All that is necessary is care on the part of the primary teachers to start the pupils right and keep them at it. The practice of ruling the black-boards, the hand-slates, and all the paper used in the primary class-rooms is, I think, an excellent thing. The best way to rule the black-boards is with thin lines of mucilage. They are not obtrusive, and they can be easily removed when the necessity for them no longer exists.

There are pupils who consider it a triumph of penmanship, or appear to do so, if they can squeeze a word in at the end of a line when there seems to be no room for it. Sometimes they will turn it upward or downward to get it all in. In the same category may be placed the pupil who considers that words can be divided anywhere, and who lops them off accordingly as soon as the end of the line is reached, without regard to syllables or sense.

Abbreviations are all right in themselves, and our pupils should learn all of those in common use. But there is a danger in allowing them to employ the abbreviations too much. They are apt to forget what the abbreviated forms stand for. To illustrate this point, I recall an instance of a pupil of several years' standing who frequently used the name "Chas" in his sentences, without a period after the abbreviation. At first I contented myself with telling him to supply the period. Finally, that same old "Chas" became an eyesore, and I told the boy to write the word out in full. To my surprise, he really believed that "Chas" was a name in itself, like "Tom," "Jim," "Ben," etc. Since that occurrence, I have looked with suspicion on certain abbreviations in my pupils' written work, and the call for the full word has, more than once, brought out the fact that the pupil cannot give it correctly. The habit of abbreviating and contracting words in composition and letter writing is one to be discouraged. It savors of laziness on the part of the writer. The same may be said of the indiscriminate use of "&" and "etc.," the latter being a favorite means of getting out of naming several things, when one has forgotten all but one or two.

There are several ways of misusing the comma, but, as they are not peculiar to deaf pupils, there is no call to dwell upon them here. There is one error in this respect, however, that I wish to mention, because it is an error committed by many teachers. I have before me a number of text-books containing rules for punctuation. One rule relating to the comma has reference to its use in separating words in a series. To illustrate, take the following sentence :—

Cotton is raised in India, Egypt, and the United States.

Grammarians and rhetoricians like Hart, Kerl, Goold Brown, Reed and Kellogg, Meiklejohn, Hill, Lockwood,

Whitney, are all in perfect accord in calling for the last comma above. But I have observed that the majority of teachers omit it. Why?

The omission of the period at the end of a sentence or after an abbreviation is simply the result of carelessness and forgetfulness, and is to be remedied only by watchfulness and insistence on the part of the teacher.

Misuse of the quotation-marks consists in using them where there is no direct quotation, or in placing them properly at one end of a quotation and omitting them at the other.

Many pupils let a mere jab with the pen or pencil serve as a mark of punctuation. They make no distinction between a comma and a period in form, and their interrogation-point might as well be a Chinese letter as a regulation question-mark.

The preceding are the errors of form that have come most frequently under my observation. There are others, but they are of the same general nature, and the treatment to overcome them would be the same.

Some who glance over this article may be inclined to waive aside the faults I have mentioned as mere trifles, not worthy of serious attention. They may be trifles, but we are now in the "day of small things," with our atoms and molecules and microbes and bacteria. The first essential of business success is attention to details, and the teacher's success is largely dependent upon the same principle. Pupils will be just as careless and slovenly in their work as the teacher will let them be. When the pupils find that the teacher is particular about paragraphing, punctuation, capitalization, and other matters of form, they will be more careful themselves. Refusal by the teacher to accept slovenly or ill-arranged work will bring about immediate improvement on the part of the pupil. A most efficient auxiliary in bringing about the desired improvement is praise judiciously bestowed.

Flattery is something that no honest person likes, but deserved commendation is one of the most powerful of incentives to right doing. There are few grown-up people who labor without hope of reward, and we cannot expect children to do it. The teacher who is ready with reproof, but chary of praise, cannot hope to get so much or so good work from the pupils as one who reverses the order.

Errors of Construction.—The most important of these, so far as my observation goes, are—

Misuse of the verb,

Misuse of the adjective and adverb,

Misuse of the relative clause,

Confusion of direct and indirect quotations,

Careless use of pronouns, especially in lack of agreement with antecedent,

Misuse or omission of the articles,

Transposition of adjective and noun,

Transposition of letters in familiar words.

The greatest errors made by deaf children in their use of the English language are due directly or indirectly to misuse of the verb. Several years ago, I made a collection of several hundred incorrect sentences written by the pupils of an advanced class in their every-day school work. Unfortunately, I have lost it, and so cannot refer to it now, but, as near as I can remember, fully seventy-five per cent. of the errors could be traced to a wrong use of the verb. It is clear, then, that our chief attention should be given to the removal of this huge stumbling-block from our pupils' pathway. Errors in tense are more frequent than others. Many of these are due to the failure on the part of the teachers to require definiteness as to time in sentence-writing, especially in the earlier years. To illustrate this point, I will quote a bit of my own school-room experience.

I was giving the class an exercise in verb tenses, and

they were writing illustrative sentences on the black-board.

One pupil wrote—

I have received two letters.

The sentence was grammatically correct, but I doubted if the pupil had the right idea as to time in his mind, so I asked, "When?" "Last week," replied the pupil. Thereupon, I marked it as incorrect. Another pupil wrote—

John had better visit his uncle in town.

A good sentence, but open to the same suspicion. "When?" I asked. "Last summer," replied the pupil, and a veto followed.

The above instances are sufficient to illustrate the point that I wish to emphasize. We teachers are too prone to take things for granted. Several years ago, "Zeno," in the *Educator*, advised teachers never to believe that their pupils knew anything. It would be better to change it so as to read, Never take it for granted that your pupils know anything. If there is any time and place where certainty is of importance, it is in teaching the English language to the deaf. And why? Because, when we fail to assure ourselves that a sentence correctly interprets a pupil's thought, we may be confirming an error in his mind, instead of eradicating it, as is our duty. If, from the pupil's earliest years, all the teachers stood ready to challenge every doubtful sentence, every sentence that lacked definiteness as to time and place, I believe that there would soon be a marked improvement in this respect.

One vexatious fault of the pupils is their apparent fondness for inventing new forms of the verb, mixing the compound tenses, the participles, and the passive voice in hopeless confusion. I can think of no other way to overcome this than to begin in the early years, and have a chart of verb-forms on the wall, only those forms that the pupils have learned and are using. As new forms are introduced, they can be added to the chart. The

pupils must be made to understand that they shall limit their experiments with verbs to the forms on the charts, and not wander off into the realms of fancy. If a sentence is presented to the teacher with a verb-form incorrect, the pupil should be made to correct it himself by reference to the chart. Adherence to this practice throughout a number of years would, I think, almost put an end to verb-invention by the pupils.

The misuse of the relative clause can be reduced to a minimum by regarding it as a whole, and so treating it, from the moment it is introduced. Wing's symbols seem to me particularly useful in the way they treat relative and other clauses. To illustrate,—

3

The tree which stands near the barn was struck by lightning.

The line drawn above the clause marks it as a whole, and the figure "3" classes it as an adjective modifier. It would be treated in the same way, with a different symbol, if it were used as an objective clause, an appositive clause, etc.

As to the other errors of construction in my list, neither time nor space permits me to say anything. Methods of overcoming them may suggest themselves to different teachers, though, after all, the best method will be found in practice, practice, practice.

In arithmetic, the chief errors noted are—

Poor figure-work, having reference to the form of the figures,

Uneven or irregular arrangement of figures that should be in lines or columns,

Misuse of the signs for dollars and cents, and of the decimal point,

Doing short division by the long method,

Omission of mathematical signs, especially that of equality,

Omission of explanatory words when an example
is performed that requires several steps,
The use of false equations,
Lack of ability to reason from analogy.

The remedy for nearly all these errors is obvious, being merely the exercise of care and insistence on the part of the teacher. By false equations, I mean the running together of different operations in one equation, thus:—

$4 + 5 = 9 \times 3 = 27$, when it should be separated
into two distinct operations,—

$$4 + 5 = 9$$

$$9 \times 3 = 27$$

Lack of ability to reason from analogy can best be demonstrated by illustrative examples :

If three lead pencils cost twelve cents, how many pencils can you buy for twenty cents?

Now, the pupils have learned to do such examples like a flash, either mentally or in writing. So far, so good. Give them this :

If three-fourths of a pound of candy costs one-fifth of a dollar, how many pounds can you buy for two dollars?

The processes in the two problems are identical, but it is extremely hard to make the pupils see it. They can add, subtract, multiply, and divide fractions with rapidity and accuracy, but they cannot perceive that all they have to do in the second example is what they did in the first, operating with fractions instead of with whole numbers. I have made it a practice lately, when the pupils stumbled over such an example, to write a simple one like the first one, and tell them to do it, and then follow the same method with the other. They have sometimes objected to the "baby work," as they call it, but the effect is wholesome, and they are beginning to do much better since I had recourse to that plan.

Errors of form are mere matters of habit, and there is little excuse for their existence. Start the pupils right,

and keep them at it, and such errors will be found to be reduced to a minimum as the pupil approaches the end of his course. The same cannot be said of errors of construction. Their eradication means hard work, hard thought, and wearying repetition by both teachers and pupils. But the most essential thing of all in this fight against errors of all kinds is union among the teachers. The almost universal practice in schools for the deaf is to have the pupils pass from teacher to teacher as they advance in grade, so that the completed education of each pupil is the work of several teachers. How important, then, is uniformity, concert of action, among the instructors! One teacher who is indifferent to details may undo the work of two or three careful ones, for the children are quick to adapt themselves to new circumstances. There is another reason why there should be agreement among the teachers as to many of the points that I have brought up in this paper. It is always a most embarrassing experience for a teacher to be compelled to take issue with a former teacher of the class. Pupils will often inform their teacher that So-and-So taught them differently. In most cases they misrepresent "So-and-So," but occasionally it is the truth, and one of the teachers is in error.

The accepted principles of grammar and arithmetic, along which lines our chief work lies, are so uniform that there is little or no excuse for conflict among the teachers. And it will usually be found, when errors are traced to any teacher, that that teacher has been relying more upon his or her memory or judgment than was wise, and has not taken the pains to be sure of the correctness of this or that position.

It would, I believe, be a wise and beneficial plan for the teachers in every school for the deaf to prepare a little hand-book containing the commonest principles in punctuation, in correcting written work, in number work, etc., so that all could follow the same general outline.

Does it not stand to reason that if each teacher in turn, year after year, hammered away at the same common errors of form and construction, many of them (the errors, not the teachers) would be hammered to pieces before the pupil finished his ten or twelve year course?

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NATURAL LANGUAGE PLUS DRILL.—AN EXPERIENCE—II.*

LANGUAGE which stood for abstract ideas was given to Creighton easily enough by means of the language which he had. The manner in which *true* and *truth* were taught will easily illustrate this.

"Miss Blank is a man."

"No, no, no, NO!" from Creighton.

"That is not true. That is not the truth," from the teacher.

"It is raining hard."

(Brilliant sunshine out of doors, of course.)

"No, no, no, no!"

"That is not true. That is not the truth."

"It is very warm out of doors."

"Boston is the country."

"The swan-boat is a steamer."

These manifest untruths, accompanied by a statement of their untruthfulness, and, it should be added, by a laugh for evident moral reasons, built up a very good idea of the meaning of *true* and *truth*, which at once became a part of the child's vocabulary.

The meaning of a great many words was taught by context that year. Thief, for instance, after this fashion:

A thief went into a barn very softly. He unfastened a

* Continued from the April number of the *Annals*, page 179.

horse's halter and led the horse away. The owner had no horse.

A naughty little thief put his hand into a woman's pocket and stole her purse.

My white cat is a thief. She stole the dog's meat.

The policeman arrested a thief who stole a watch.

As each sentence was written the little boy asked, "What does thief mean?" ("What does — mean?" was the question form which he used most persistently.) No answer was given him except "Wait; by and by you will know," and, sure enough, by and by he did know, for at the completion of the last sentence he shouted, "A thief is a stealing thing." It was easy to substitute "A person who steals," and this is an example of the manner in which numberless words were taught that year.

The impersonating of animals, the "playing" of everything that admitted of being "played," continued until late into the winter, when fairy stories and other stories which appealed strongly to the imagination seemed to take the place of the playing.

The forms of the personal pronouns were taught by pretending that various imaginary people were in the room, and then talking about them.

Verbs were taught with malice aforethought. That is, besides the verb forms which came up incidentally in the complete sentences into which he was made to fashion his language during this year, some time almost every day was spent in studying verb forms. The studying was unconscious on the child's part, of course, but it served its purpose nevertheless.

Some Verb Lessons.

The captain sailed far north to catch whales.

He catches them with a harpoon and a long line.

When a whale is caught the sailors cut it up and get oil from it.

It is very cold work, catching whales.

A man down town will frame a picture for mamma.
He frames many pictures for people.
He framed two pictures in oak-wood for Creighton.
Perhaps he is framing some pictures now.

See the flame of the candle flicker.
It flickers a great deal when there is no shade on the candle.
The gas-light flickered when the window was open.
Nothing is flickering now.
It is daytime now.

A monkey can climb high up on the palm trees.
Sometimes a naughty monkey climbs up and throws cocoanuts down on people.
A good monkey climbed up and brought down some cocoanuts to his little sister monkeys.
Last summer I saw twenty monkeys climbing all over the monkey-house at Melville Gardens.

A Dialogue.

(Used as a reading-lesson.)

Creighton. If you throw stones at people, the policeman will arrest you.

Tom. If he arrests me, what will he do with me?

Creighton. He will take you away to prison.

Tom. I do not want the policeman to arrest me. I will never throw stones again.

Creighton. I should be very sorry if the policeman arrested you.

Tom. Oh, look! he is arresting a tramp, now!

[The writer pleads guilty to the charge of plagiarism in spirit from Mark Twain's "The Good Little Boy."]

Another Dialogue.

Effie. See the waves roll up!

Creighton. I like the sand. I will make a sand fort with my shovel.

Effie. If the water rolls over your sand fort it will spoil it.

Creighton. The water never rolls so far up on the beach.

Effie. Oh, yes it does; it rolled up here yesterday.

Creighton. Oh, oh, oh, oh, the waves are rolling up over my fort! My feet are wet!

The teacher undertook to teach numbers to ten that year, or rather to supplement, with home work, the number work which he was doing at school. She began in the orthodox way, with the objects, but, sad to relate, the orthodox way bored the child dreadfully. She persevered, however, and he learned the combinations and separations to ten, with the objects, handling them and repeating the words. He learned to count, too, by twos and threes, and to recognize numbers of objects in groups. The next question was, how to give him sufficient drill in mental combinations, and such problems as those which follow were used in great numbers, and served not only to build up a number sense, but stimulated his imagination and put language before him.

A Few of the Problems.

A captain harpooned four whales, but one whale broke the line and got away. How many whales did the captain catch?

Two men went out to fish. One man caught three fish and the other man caught one fish. How many fish did they both catch?

Four little black boys were swimming in the ocean. A shark caught one of them. How many little black boys were left alive?

The dude-brownie, the Chinaman-brownie, the Turk-brownie, and the Dutchman-brownie, all went hunting. How many brownies went hunting?

The dude-brownie shot two foxes, the Chinaman-brownie shot one fox, and the Turk-brownie shot two tigers. How many head of game were killed?

Creighton's Problem.

4 men were inside the castle. 1 man ran. How many were left?

A baby fox had a party. He was five years old. How many candles did he have on his cake?

He invited two girl-fox-cousins and two boy-fox-cousins. How many fox-people were at the party?

Five tigers lived in a den in a jungle—the father tiger, the mother tiger, and three tiger whelps. A circus man stole two of the whelps and carried them away. How many tigers were left?

One day a circus man was hunting four tigers, and they climbed high up into a tree and went to sleep, and the circus man could not find them. How many tigers did he catch?

Four geese went out to play, and wicked Reynard caught one of them. How many geese were left?

Five mice came out to play in the dining-room after the family had all gone to bed. They found some cheese on the table and began to nibble it, when, pounce! up jumped the cat on the table, and caught one little mouse and killed it. How many mice ran away home?

Ten such problems as those which have been written down were usually given to the child each day. Sometimes they were written for him and he read them and wrote down the answer without any speech being used by either teacher or pupil, and sometimes they were both spoken and written. That he almost always answered them correctly the funny, scrawly words and figures on the papers in the teacher's possession show. Sometimes the ten problems would take the form of a continued story in which the same actors took part in ten different dramatic incidents.

There remains to be told concerning this the third year of instruction, and the second of combined school and private teaching, what was done to stimulate the child's imagination, and what sort of things were talked about. The two subjects are, in a manner, perhaps, one.

The teacher made up stories, which were always acted after they were read, during the first three months of the year, and after that she used all the old fairy stories and myths—"Jack the Giant Killer," "Puss in Boots," "Cinderella," "Beauty and the Beast," "Little Red Riding

Hood," "Hop-o'-my-thumb," "The Three Bears," "The King of the Golden River," "The Cold Heart," "Romulus and Remus," "Hercules and his Labors," "King Midas and the Golden Touch," and all the rest. First she would tell one in very simple language (and write it) and then she would stand over the boy and make him read through an ordinary picture-book version of the same story, word by word. If he asked what any phrase meant she explained it to him, but she did not herself call attention to anything in the text. After that they always acted the story.

At this stage Creighton began to make up stories for himself, for the sake of playing them. He made up story after story, usually based on something which he had read with his teacher, but varying a good deal from the original, explained them to his sisters and brothers, and then the four children played "giant" or "bear" or "baby-fairy," as the case might be.

Up to this time Creighton had done much of his thinking aloud; it seemed as though he needed the actual contact of the vocal organs to call up words for his thoughts; but at this time he began to think silently and to think a good deal.

One day he greeted his teacher with "Where is the very, very, very large nest?" She did not know to what he referred, and said so, and then he proceeded to explain. "Very cold in winter. All the birds have gone far, far away. They sleep in a very, very, very large nest in the south. By and by they will come back. Where is the nest? In Africa? In Philadelphia? In Washington? In Virginia Beach?" "How do you know they sleep in a very large nest?" the teacher asked. "I *know*," he answered, and that was all. The teacher took pains to find out whether any one had told him any story at all resembling this, but no one who was on speaking terms with him had ever heard it before. He had been

told, as all children are, that the birds go south in the winter, and he knew that certain places were situated south of Boston, but the nest theory seemed to be his own.

Then, in telling a story, he would make use of such an expression as, "The sailors heard a fierce fish howling," "A great black cloud will fall down and crush you," expressions which were his own, because in all his language work manifest impossibilities were avoided, with two exceptions—animals were allowed to talk, and fairies were supposed to exist. If the child asked, as he sometimes did of a particular story, "Is the story true?" he was always answered truthfully, but, unless he asked, nothing was said about the matter except in the case of historical incidents, which will be considered later.

Creighton undoubtedly believed in fairies and in the speaking powers of animals for a period of perhaps eighteen months. After that time, although he still talked about fairies and still allowed the animals in his stories to talk, he distinguished very accurately between true and untrue stories, and possibilities and impossibilities.

The educational realists, if they read the above, would doubtless decide that a great ethical wrong had been committed, and those other educators who are myth-mad would, on the other hand, opine that the pupil had been defrauded of his rights, inasmuch as he had not experienced (with consciousness on the part of the teacher) every stage of human development from protoplasm to—Shakespeare. The quarrel has no place in these pages; but if a defence for the teaching of fairy stories is necessary, the family and the teacher would defend themselves along these lines.

Much of the beauty and grandeur of literature is lost to him whose imaginative powers are weak. A metaphor loses its force to the literal-minded. A figure of speech is an empty form of words or a lie to the man whose im-

agination does not come to his aid. The permanent literature of the world is largely fiction or myth. Its value lies in the beauty of its form, to be sure, but subject-matter and form are inseparable.

To the congenitally deaf a true appreciation of the treasures stored in books is a source of happiness, greater perhaps than any other outside of family joys.

An imagination which is to be active must be cultivated young, and the fairy stories which are the literature of early childhood seem a fitting aid to such cultivation.

Then, too, childhood has a right to all the joy it can have, and Creighton's parents and teacher felt that the fairy stories which had given them, and their parents before them, so much pleasure could not fail to give the same pleasure to the little boy.

Lastly, as to what was talked about that third year, besides the fairy stories and the natural language of the household, of holidays, and excursions, and family life generally. A trip to Europe was contemplated for the following summer, and so many of the topics of conversation were geographical or historical. "Jack the Giant Killer" led to talks about castles in general, and a few famous castles in particular. Castles led to knights, and knights to armor. Stories of English history and stories of American history came naturally after that. The father told the boy of the wonders that he would see in Paris and London, and the boy in his turn told his teacher. More than anything else, he talked about Switzerland and the Alps, the high, high, high mountains with snow. He got hold of some maps and found the names of the places he expected to visit, and then, running his fingers around the blank margin of the map, demanded what was outside. The points of the compass (on paper) were explained to him, and he was soon able to indicate the location of places somewhat roughly, by looking at a map. From the very beginning of his educa-

tion, the cardinal points were constantly used with him.

A few examples of his written work and a pen photograph of a little conversation which occurred during this year happen to have been preserved, and are here presented. Spelling, capitals, and punctuation, as well as language, are the child's. If the printer has any bold-face periods he should use them to indicate the size and startling distinctness of the originals.'

Evidently a description of a picture.

The giant is writing a letter to Jack● Jack is pulling a
a money-bag●

The giant's wife is picking up the hen●

A Letter.

Boston,
Feb. 7, Fri.

Dear Miss Blank Blank

I saw a slippery thing. Then I
went on it and I slipped. In the After-noon I put a red flag
on it.

YOURS TRULY
CREIGHTON

(Literally true. The slippery thing was a little patch of icy snow in the front yard. The little boy fell face downward on it in the morning, and in the afternoon he put a red silk handkerchief tied to a cane on it as a danger signal.)

Original sentences composed for the sake of using certain words.

John was awkward when he dropped the pencils●

An eagle was very bold● He carried a baby away●

The barn was close to the tree●

The man had each arrow●

John goes out every day●

An elephant is a great sahib● (Reminiscence of a story.)

It is nice to ring the bell●

It is too bad to dirty My room●
 I like to coast on even hills●
 A dog has fore paws● All the anils have fore paws●
 It is spring now● The sunshine is brigt and warme●
 This is a fair day● Yesterday was not faire●
 Papa is generous when he gave some candies to mee●
 You were generous when you gave my tiger to mee●

A Pen Photograph.

The little boy took his Mother Goose and read his teacher the rhyme about the little boy who went into a barn and lay down on the hay, and then a big owl came and made him run away. He read it very carefully, without allowing her to see either the book or his lips. When he had finished she said, "Why did the little boy run away?" and he said, "I do not know; you must tell me." "I think, perhaps, he was afraid the owl would pick his eyes out," she said.

Then his thoughts took a new turn, and he asked, "Why did the owl fly into the barn?" The teacher said, "Well, you know it was daytime, and owls do not like the light, and so he flew into the barn because it was rather dark there."

"What does *rather* mean?" "A little; the barn was a little dark." "Why was the barn rather dark?" he asked, making instant use of the new word. "I think the windows were very dirty, and that there were many cobwebs over them, so the light could not come in very well." "Why were there cobwebs over the windows?" "Because the spiders made them there." "What did the spiders make them for?" "Cobwebs are spiders' homes, and each spider spun a cobweb for a home."

"Well, in Riverdale, when the barn windows were very dirty I washed them." This information was rather surprising, because in Riverdale the barn is at some distance from the house, and the teacher did not know that the

little fellow ever went near it, so she questioned him somewhat closely.

"Did you wash the windows yourself?" "Yes." "What with?" "With cloth." "What was the matter with them, what made them dirty?" "Many, many, many cobwebs." "Can you write the word cobwebs for me?" she asked suddenly, doubtful for the moment if he knew the meaning of the word, although he pronounced it perfectly. "Yes, I can," he said, and took a pencil and wrote it. "What did you do with the cobwebs?" "Well, I wiped them all off, and then I washed the windows with water." "What became of the spiders?" "Well, the points of the broom were so sharp that they killed them." "Did you use the broom?" "No, the man did."

Just here an interruption came, and the conversation was not continued. No writing was done during this conversation, except the one word mentioned above. Indeed, toward the end of this year it became impossible to write everything which teacher and child said. Pages and pages still were written, but only a stenographer could have written down all.

In the specimens of the child's own composition given above several mistakes appear, which he himself instantly corrected as soon as his attention was called to them. A misspelled word troubles him greatly to this day. For a long time he always cried when he saw one, but he has outgrown that now.

In May, when the family sailed for Europe, the boy, then seven years and one month old, having been under direct instruction about twenty-six months, within a period of two years and nine months, was using idiomatic English freely and well. He made mistakes, and used odd constructions sometimes, truly, but not oftener than do bright hearing children, and the mistakes which he made were seldom, almost never, what are styled deaf-mutisms. His mother thinks that his language was rather better than that of any one of her hearing children at the same age.

He used relative pronouns and verbs in the subjunctive as readily and easily as any hearing child, and he related long experiences or stories, using complete sentences, simple, compound, and complex, apparently without any difficulty.

Neither teacher nor school could have accomplished this result, or anything like it, alone. It was the family life which made it possible, and especially the presence of the children. Those children talked to their little brother day and night, in season and out of season; they played with him in English, they petted him in English, they quarrelled with him in English. They often put more language before him in half an hour's play than an individual child in a large class in a large school can see in three hours. His accurate speech-reading made this possible, and his friends believe that the excellence of his speech-reading was due to the early beginning of the work in that line.

To give the particulars of the stay abroad would be to write what has been so often written before. Suffice it to say that the little boy went everywhere and saw everything just as the other children did, was told all the legends and history that the grown people of the party knew, and talked about everything in precisely the same way as did his hearing brother and sisters. By means of language, for the most part spoken language, although difficult words were always written, this congenitally deaf child of seven gained from travel pleasure and profit which without language would have been entirely wanting.

He learned to take pleasure in reading to himself during the long railroad journeys and the time spent in hotels. Hitherto he had not cared for continued reading unless some one was beside him to talk about the text, but suddenly, one day, he discovered that he could read new stories faster than any one could tell them to him, and from that time he spent hours in reading "The Yellow

Fairy Book " and Whittier's " Child-life in Poetry." Of course he came across many words that he did not understand. He never stopped for them, however, but read on and on to the end of the story. Then he would close the book and ask of some one, " What does —— mean ? " Sometimes he would ask for the meaning of three or four words. That he gathered the meaning of the story as a whole the family was convinced, because he could tell it again, and besides, if any one undertook to tell to him a story which he had once read, he was very prompt to detect deviations from the original.

There was always one very curious thing about Creighton's reading. From the very beginning, or at least from the time of the writer's first acquaintance with him, he could always remember where he had seen a word. When he met in a primer a word which the teacher thought new to him he would turn over page after page of his monosyllable book and point to the same word without hesitation. One day, in a lesson on accent, he had the word Japan, and going to a pile of old magazines he turned them over, discarding one after the other rapidly, until he came to a certain copy of " The Review of Reviews," which he opened and pointed to an article on the war between Japan and China.

One day, in a list of words written for an articulation lesson, he found the word *clew*, and going to his book-case he selected a certain fairy-book, turned over the pages, and running his finger down the line stopped at the word " clew," which occurred in the middle of a page, and said, " I did not understand what *clew* meant when I read that story in Paris." So far as others can judge, he remembers the appearance of the word on the page. He does not remember the text *verbatim* ; when he tells a story it is always in his own language, which differs a good deal from the book-language, but any unusual word he nearly always incorporates into his own version.

The next year's work will not be recounted here. The

little boy attended school more hours a day and had fewer lessons at home, and those lessons were for articulation and number drill, rather than for language, and as this paper was written for the sake of showing the growth of the power to use and understand language its work is finished.

Since, however, "Correlation" is the educational watch-word of the day, the writer is strongly tempted to show how the number work was correlated (?) with contemporary events. The answers were written by the boy and were all right.

Fifteen Cuban soldiers were chased by some Spaniards. Three of them were captured. How many escaped?

Seven Spanish soldiers were resting in the shade when eight of their comrades came rushing up to them and said, "We are pursued by Cubans." Then they all ran away. How many ran away?

The fifteen Spaniards ran with all their might, but the Cubans overtook them and captured nine. How many escaped?

The six Spanish soldiers each stole two pineapples. How many did they steal?

Three pineapples fell on the ground beside them, besides the ones they stole. How many pineapples in all?

Five Spanish soldiers were hungry, so they went out hunting and each shot three wild pigs. How many did they shoot?

Ten Cuban soldiers wanted to capture a cannon, but fifteen soldiers were needed to do it. How many more soldiers did they have to get to join them?

They captured the cannon, but three of them were made prisoners by the Spanish. How many made off with the cannon?

The twelve Cubans went hunting for cannon balls and half of them were captured. How many were captured?

The six Cubans who were left found each two cannon balls and three extra ones. How many did they find?

MABEL ELLERY ADAMS,
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THE FOURTH YEAR'S WORK.—I.

I. LANGUAGE.

It hardly seems necessary for me to say "Review." In this, let a great deal of your work be in the form of conversation with your pupils about things in which they are interested. Take the trouble to learn the technical terms of base-ball, foot-ball, tennis, and any other games that your boys and girls play, and talk to them about these games. I have often found that a desire for the base-ball news will induce some boys to read when nothing else will, and that the habit will gradually grow, until the base-ball notes form only a small part of what is read. If you have any of this sort in your class, inform yourself on base-ball, show them where they can find what they want in the paper, and take advantage of their passion for the game to teach a little language.

Teach your pupils how to use the dictionary, and keep one always on your desk where they can consult it. Teach them how to find a word, and, when found, what the contractions, etc., mean. It will often help them as much to know what part of speech a word is, or what is the past tense of a verb, as to know the meaning of a new word.

Keep up your letter-writing. Make your attempts at composition-writing more ambitious, and do not so strictly confine them to the knowledge and ideas that they already have; but begin to give them, or put them in the way of getting for themselves, new ideas and facts to put into these compositions. Take every chance you can to interest them in the past, especially in the history of our own country. Do this with a view of forming in them a taste for history, though it will be some time yet before you begin to teach that study.

Lesson I.

It seems to me that Miss Sweet's method of teaching this lesson is faulty. She gives her pupils, or appears to give them, both the possessive and objective case of the relative at the same time. I hardly think she intended the lesson to be taught in this way, but the young teacher in following her directions would probably so teach it. What Miss Sweet probably means, and what should certainly be done, is to give considerable drill upon one of these cases before taking up the other.

Get a picture; the one at the head of this lesson in Miss Sweet's book will do as well as any, if the children have not seen the book; but if you are so fortunate as to have a photograph of a number of persons whom your children



know, especially if they have not seen it before, it will add much life and interest to the lesson,—so much that I think it would be a wise expenditure for the school to supply such a picture. Carefully write a story about it, or a description of it, using no relatives, but language which will in many places enable you to substitute them for what you have written. For instance, in preparing

for this picture I should change Miss Sweet's lesson as follows :

"A boy stands in the middle. His name is Tom."

"A boy stands at the end. His name is Arthur."

"The two little girls are sisters. Their hair is tied with ribbons."

"The name of the other girl is Alice. Her hair is not tied with a ribbon."

"A little girl stands between Tom and Arthur. Her name is Jessie."

"A girl stands at one end of the wall. Her name is Mary."

"Alice is next to Mary. Her brother Tom stands next to her."

"Tom is Arthur's cousin. His sister stands next to him."

Do not give any relatives in the objective case at first. Teach this case afterwards in an exactly similar way. I confess that the changes we have made do not improve the style of the story at all ; but they fit it for our purpose, which is to show the use of relative pronouns in the possessive case.

Some morning, after you have reviewed the use of relatives in the nominative case a little, just enough to freshen the memories of your pupils, give one of these pictures to each, or have a large one hung where all can see it. Draw a diagram of a sentence with a relative clause, and show that we have thus far used the relative in the nominative case only, and that it has always been the subject of the verb in the relative clause ; but we can use a possessive " whose," which, with the noun after it, can take the place of " who," " which," " that," etc., as the subject of the verb which follows, and the whole clause will still keep its character as an adjective modifying an antecedent noun. This possessive case of the relative will always take the place of a possessive case of

a personal pronoun, and change the independent sentence which that introduced into a relative clause.

These are big words, and I do not intend that you shall use them at all in explaining to your class. If the principles and changes are shown by diagrams and model sentences, your pupils will understand, although they do not know the meanings of the words that I have been obliged to use in writing this for you.

Begin to describe the picture, and manage to draw out from them the language you have prepared. Unless you have taught this lesson in this way before, you will be wise to have this with you in writing, so as to keep your object clearly in mind all through the lesson.

As soon as you get each set of sentences, propose to combine them into one, using "whose," and illustrate by a free use of diagrams the changes made. Do not forget to drill in a similar way on the use of "whose" as a possessive case of "which." Our prepared lesson, when we finish, will read :

"A boy, whose name is Tom, stands in the middle."

"A boy, whose name is Arthur, stands at the end," etc., etc.

After some practice of this sort, begin to give directions, and ask questions using "whose," and try hard to get the children to give them to each other, such as :

"Give a crayon to the boy whose slate is broken."

"Touch the girl whose hair is tied with a blue ribbon."

"Ask the girl whose book is torn to bring me a pen."

I have seen our younger children playing a game that could be made a splendid drill on the use of relatives, simply by using spelled or written language where they used signs. The pupils sit in a semicircle round one of their number, who describes some one present, or some one they all know, a single sentence at a time, and try to guess of whom the leader is thinking. The one who guesses first takes the leader's place. The leader's sentences could be made to take a form like some of these :

Miss Sweet says to teach the perfect and pluperfect by showing how they differ from the past; but that is just the trouble. Your pupils have trouble in seeing that they differ at all, except in form. If they had another language, if they were like the much-talked-of English child in a French family, they would easily see that where they had used a certain set of words—a certain tense—in English, they must use the corresponding set in French. We are trying to teach forms of language intended to express delicate differences in time, and the first thing we must do is to develop the distinctions of time. You will find it very hard to make your pupils, or young hearing children either, see the difference between such expressions as:

“I studied before breakfast.”

“I have studied before breakfast.”

“I had studied before breakfast.”

The perfect tense refers in some way to the present, though the connection is frequently not very obvious. For a full discussion of the use and meaning of these tenses, however, consult some good grammar.

We can hardly hope in a few weeks to get these ideas into our children's minds with sufficient clearness for every-day use. They must grow gradually. We must tell them to use the perfect tense—

1. When no time is mentioned, as:

“I have studied algebra.”

“I have seen a war-ship.”

2. When the time mentioned reaches to the present time, as:

“I have taught twenty years.”

“I have lived in Flint four years.”

3. When the action is only recently finished, as:

“I have corrected your composition.”

“John has finished his lesson.”

4. With “since,” “to-day,” “just,” “often,” etc. This use is really included in the former ones, as:

"I have gained five pounds since May."

"I have often killed birds on the wing."

5. After "when," meaning future time. This is, perhaps, a colloquialism for the future-perfect, but is in such constant use that our pupils must understand it, as they will meet with this use a dozen times to once that they will find the future-perfect.

"When I have finished this book, I shall go to bed."

"When I have heard what John says, I shall know all about it."

Give a great many examples under each head, so that your pupils will be able to understand the use of the perfect tense whenever they meet with it.

After this, take up the lessons in the book, and have the tense used in their original work as much as possible.

The pluperfect, after they know the perfect, is easier to understand; and practice on it, under rules that you can make them understand, is easier.

It is used—

1. To express the relation of time between two past actions.

In every-day, play-ground signs, the deaf usually express this relation by "then," following the action which is expressed by the pluperfect tense. In English we say "*after*," "*when*," etc., before the pluperfect.

"After the girls had cooked the dinner, they ate it."

"When we had found the brook, we followed it."

"Before we had shot anything, it began to rain."

2. To follow a past tense in the indirect quotation, where a perfect tense was used in the direct:

"You said that you had studied algebra."

Drill upon the idea that this tense is used to show that the action was finished at some fixed point of past time. Have them change from the direct to the indirect quotation often. Be satisfied if they understand this tense when they meet it, even if they are slow about using it.

Lesson III.

The use of a clause, a complete sentence, as an adverbial modifier of time, is easily taught by diagrams and questions. Its use will enable us to use much more freely the tenses taught in the last lesson. Teach it at first by a conversation :

"Do you like to play?"

"Yes."

"Do you always play?"

"No."

"When do you play?"

"I play before breakfast, and after school."

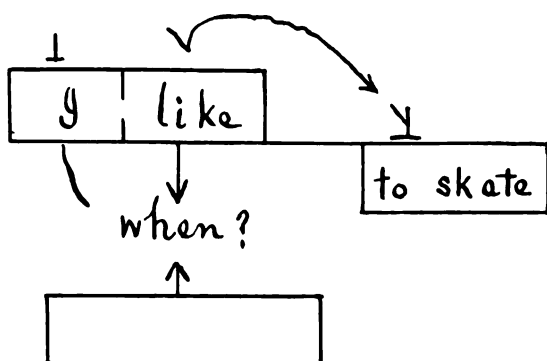
Having got the information, put it into the sentences :

"John likes to play before he eats his breakfast."

"He likes to play after he finishes school."

Diagram, and diagram the clause separately, showing that it is a complete sentence introduced by a preposition, and that it is fastened to a verb to show "when."

Lead up to the use of *when*, *while*, *before*, *after*, *since*, *till*, etc., in the same way. Ask questions, and, if not clearly understood, use signs freely. Put at least one diagram on your slate every day. Take a simple statement, as: "I like to skate," and diagram it:



Ask them for an answer to this "when?" They may answer "To-day," "After school," "In the winter," all of which are correct answers to the question "When do you like to skate?" but tell them you want a perfect sentence with a verb in it. Ask if they like to skate when they are sick, or when the ice is weak, and have them use the answers given, as the clause in the full sentence. Many of these answers would probably be better used as conditional clauses, but do not now divert their attention from the time clause. The other trouble will come soon.

It will hardly be necessary to waste much time in teaching the difference between *while* and *when*. Just tell them that *when* refers to a certain point of time, and *while* to a period, and give a few examples. Many hearing people do not use the two words with exactness, and we cannot, as yet, expect our pupils to use better language than is used to them. The ordinary requests your pupils make in school will give you chances to use the time clause, as :

"You can write when you have finished this lesson."

"You can read your library book while I am correcting Annie's letter," etc., etc.

You will, of course, remember to call attention frequently to the fact that the clause can be used either before or after the rest of the sentence, though sometimes such changes of place require changes of pronouns to nouns, etc., as :

"John will go after he has finished his breakfast."

"After John has finished his breakfast, he will go."

Lesson IV.

Pass from the last lesson directly to this. Tell your class that frequently we are not sure about things. What we intend or hope to do may depend on something else. Ask : "Do you wish to go to walk this afternoon?" Of

course, they all do. Then suggest that it may rain, or they may be sick, or any other contingency that will prevent them from going to walk or make them wish to do something else. Call their attention to the fact that their sentence as written shows nothing of all this, and ask them if they do not think that they ought to express the uncertainty. Do this by attaching a clause: "if the weather is pleasant," "if it does not rain," "if I am well," "if my father does not come after me," etc.

Develop a bargain between two of your pupils, and show how this clause can be used for this purpose:

"If you will give me one of your apples, I will make you a paper cap."

"If you will lend me your knife, I will make a windmill for you."

"If you will finish your lessons quickly, I will tell you a story."

Wait till some of your pupils ask permission to do something, and bring in the use of "if" with *can*, *may*, *must*, etc.

"You can get a drink of water, if you go quietly."

"You may draw pictures, after you have finished your lesson."

"You must study more, if you wish to keep up with Mary."

Teach *unless* as meaning *if* — *not*; and practise by asking questions:

"Will you go fishing next Saturday?"

"Perhaps it will rain."

"I will go if it does not rain."

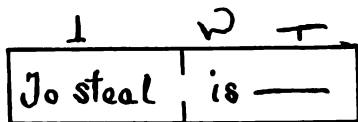
"I will go unless it rains."

Lesson V.

To teach the use of the infinitive as the subject of a verb, as in most other things, try to contrive some real event for a starting point.

If you cannot do this, begin with a conversation. For instance, tell them: "A man in New York stole a thousand dollars." Ask if they think he was a good man. Of course there will be a storm of noes. "Why was not he good?" Some of them will be very apt to say, "Wicked," or, "Steal wicked," or they will say something of the sort. All that you will have to do then will be to put what they do say into a diagram, and point out that it is not a perfect sentence.

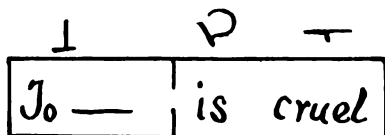
If they do not say anything that you can use in that way, ask:—"Is it right to steal?" When they answer no, write: "To steal is — ?" or diagram:



Then ask what word you shall use to complete the sentence or diagram.

In the same way, get half a dozen sentences of this kind, giving the diagram for each and writing the sentence in full.

Ask a question that will make them use a little independent thought, such as: "What actions are cruel?" and give the diagram:



or the incomplete sentence:

"To — is cruel."

Explain that they can fill the blank with the infinitive of any verb; but if it is a transitive verb it may have an object after it, just as the infinitives they use as the objects of verbs may.

You ought to get plenty of answers; but, if you do not, ask them a few questions to start them, such as :

"Is it kind to pinch little girls?"

"Is it kind to throw stones at a poor little calf?"

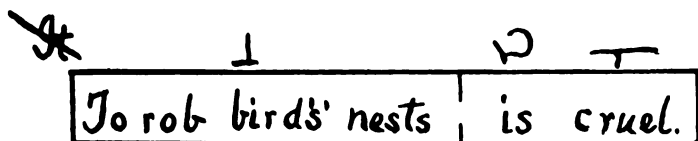
Get them to think of a few things, at least three or four, and write them in this form :

"To rob birds'-nests is cruel."

Then tell them there is another way of saying the same things, as :

"It is cruel to rob birds'-nests."

The "it" in this sentence, like "there" in a former one, is only used to preserve the sentence in a proper form. It does not have any place in the diagram, as it is only a form of speech. Give the diagram :



Change, or have the pupils change, every sentence in sight to this form. After this you may begin to write sentences like those in the book. At first, and very naturally, your pupils will prefer the first form given them, but it will not be long before they use either.

This brings us to the end of Miss Sweet's last book. I sincerely wish I had as good a guide for the remaining years that our pupils spend at school as these little books have proved for the first four. Taught in this way, they will give even the slowest pupils a fair command of simple grammatical English, and the ability to express their own thoughts in it. That we shall ever have a course that will embrace all the idioms of our language I greatly doubt. Regular daily drill in language, or in studies and exercises that involve its use and analysis, must form part of the school work of our children as long as they stay with

us. As part of this language work I should insist on the question and answer, and diagrams—the questions to be asked as often by the pupil as by the teacher, and to be good, sensible questions, asked to gain information. Diagrams should be used to explain the language that they meet with, to assist them in putting their own ideas into language, and to correct mistakes, or rather to make them more apparent. This last use is probably the most important.

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[TO BE CONTINUED.]

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- WINES, REV. FREDERICK HOWARD. "Record of Marriages of the Deaf," Springfield, Ill., 1888. Reprinted in "American Annals of the Deaf," Washington, 1889, Vol. XXXIV, p. 77.
- YALE, CAROLINE A. "Intermarriages of the Deaf," in "Facts and Opinions relating to the Deaf from America," London, 1888, p. 66. Reprinted in "Appendix to the Report of the Royal Commission on the Blind, the Deaf and Dumb," etc., London, 1889, Vol. II, p. 314, and in "Education of Deaf Children," Washington, 1892, Part II, p. 95.
- YOUNG, W. J., M. A. "Intermarriages of the Deaf," in "Facts and Opinions relating to the Deaf from America," London, 1888, p. 52. Reprinted in "Appendix to the Report of the Royal Commission on the Blind, the Deaf and Dumb," etc., London, 1889, Vol. II, p. 310, and in "Education of Deaf Children," Washington, 1892, Part II, p. 92.

E. A. F.

SHORT COURSES OF READING.

BEGINNING with 1898, candidates for admission to the Introductory Class of Gallaudet College will be expected, in addition to the requirements stated on pages 37 and 38 of the Catalogue of 1897, to present evidence of having read carefully a certain number of books, and to answer simple questions upon the lives of their authors. The books selected will be announced at least one year before the examination for which they are set.

The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number—perhaps ten or fifteen—set before him in the examination paper. The treatment of these topics is designed to test the candidate's power of clear and accurate expression, and will call for only a general knowledge of the subject-matter of the book. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The books selected for this part of the examination are—

1898:

GREEK HEROES, by Charles Kingsley. Ginn & Co.'s "Classics for Children." Boards, 35 cents; cloth, 50 cents.

TALES OF CHIVALRY, selected from the works of Sir Walter Scott and edited by W. J. Rolfe. Harper & Bros. Cloth, 36 cents.

GRANDFATHER'S CHAIR: TRUE STORIES FROM NEW ENGLAND HISTORY, by Nathaniel Hawthorne. Houghton, Mifflin & Co.'s "Riverside Literature Series." Cloth, 50 cents.

PAUL REVERE'S RIDE, in Part I, "Tales of a Wayside Inn," by H. W. Longfellow. Same publishers and series as next above. Paper, 15 cents; cloth, 25 cents.

LIFE AND ADVENTURES OF ROBINSON CRUSOE, by Daniel De

and, by making known what benefits are conferred upon the deaf in America, to promote as far as lies in his power their education and welfare in Europe.

Genoa (Italy) Institution.—The Rev. Giacomo Panario, the Nestor of deaf-mute instruction in Italy, died on the 9th of April last, aged 85. He had been connected with the Genoa Institution for 57 years, first as prefect, then as monitor, then as instructor, then as director, and finally as honorary director. A pamphlet containing a biographical sketch and his portrait has been published in his memory by the Genoa Institution.

Huttrup (Germany) School.—A school for deaf-mutes of inferior capacity, situated at Huttrup, a suburb of Essen, Rhine Province, Germany, was dedicated on the 26th of December last. The school is to be conducted by Sisters of Charity, under the general control of the director of the Essen School, and is to be carried on in harmony with the latter, receiving such Catholic pupils of the Province as are not intellectually capable of pursuing the ordinary course of study. With respect to the method of instruction to be pursued, it is stated that, while many concessions will be made, the principle of the German method will be maintained.

Illinois Institution.—Mr. Walker has resigned the position of Superintendent; it is said that his resignation was requested by the Governor on the ground that, contrary to the Governor's warning, he actively opposed a bill that had been introduced into the State legislature to establish in Illinois day-schools on the Wisconsin plan. We are informed that Mr. Walker intends to engage in business in Chicago, but we hope so valuable a man will not be permanently lost to the profession.

Kansas School.—At the end of June Mr. Hammond is to retire from the office of Superintendent, and is to be succeeded by Mr. A. A. Stewart, who was his predecessor. It is understood that this change is made solely for political reasons. We hope that Mr. Hammond, who, like Mr. Walker, is a successful teacher and superintendent, with long experience in both capacities, will remain in the profession.

Manitoba Institution.—An editorial article in the *Canadian Mute* for May 1, 1897, calls attention to the important services rendered by Mrs. S. A. McPhee, of Glen Souris, Manitoba, in the establishment of this Institution. She began her efforts in that direction in 1883, and continued them unceasingly until they were crowned with success in 1889. She is now endeavoring to secure a similar benefit for the deaf of the Canadian territories.

New York Institution.—Mrs. Mary E. [Rose] Totten, one of the first four pupils of the Institution when it opened in 1808, and for twenty years connected with it as teacher and assistant matron, died at the Gallaudet Home, April 21, 1897, in her eighty-ninth year. Mrs. Totten was twice married—first to Mr. Clinton Mitchell, a hearing man, and after his death to Mr. Nathan M. Totten, a deaf teacher. Besides her services in this Institution, she was at one time assistant matron of the North Carolina Institution, and afterwards matron of the Illinois Institution, while her husband was a teacher in those schools. An interesting sketch of her exemplary life and character, written by Mr. Thomas F. Fox, is published in the *Deaf-Mutes' Journal* of April 29, 1897.

North Carolina (Morganton) School.—Miss Allen has resigned the chief instructorship of the Oral Department, and Mrs. A. C. Hurd has been elected to fill the vacancy.

Portland School.—By an act of the last legislature this school has been made wholly a State institution. The city, under the new arrangement, gives the State the Spring-street school-house which has been used for the school, and is relieved from the annual appropriation for its support.

St. Louis School.—Miss Kate Alexander, a graduate of the St. Louis High and Normal schools and a teacher in the city public schools of eight years' experience, has been temporarily appointed an assistant teacher to enable her to qualify as a teacher of the deaf. She had to relinquish her position in the public schools on account of defective hearing.

Tokyo (Japan) School.—Mr. Shimpachi Konishi, Director of the School for the Deaf and the Blind at Tokyo, Japan, is making a thorough examination of the schools for these

classes in the United States, and expects also to visit European schools before returning to Japan.

The School was opened in 1880, and in 1885 was placed under the control of the Department of Education. It contains at present 107 pupils, of whom 64 are deaf and 43 are blind. It has a substantial edifice, built in the European style, situated in the suburbs of Tokyo, on a plantation of medical plants under the control of the Department of the Interior.

Utah School.—Mr. Frank M. Driggs, one of the teachers, has been granted a year's leave of absence. He will spend it at Gallaudet College as a normal student.

The following compulsory educational law has been enacted by the Legislature :

Section 1. Every parent, guardian or other person having control of any deaf or blind child between the ages of eight and eighteen, who on account of deafness or defective sight is unable to be educated in the public schools, shall be required to send such child to the State School for the Deaf and Dumb or the State School for the Blind for at least six months of each school year; *provided* that, in case it can be shown to the satisfaction of the Board of Trustees of the State School for the Deaf and Dumb, and the State School for the Blind :

1. That such child is taught at home by a competent teacher in the same branches and for the same length of time as children are required by law to be taught in the State school, or,

2. That such child has already acquired the branches of learning taught in the State school, or,

3. That such child is in such physical or mental condition (which must be certified if required, by a competent physician) as to render such attendance inexpedient or impracticable, then the provisions of this law shall not apply.

Sec. 2. Any such parent, guardian or other person having control of any deaf or blind child between the ages of eight and eighteen who fails to comply with the provisions of this Act after having been notified of its requirements, shall be guilty of a misdemeanor.

Sec. 3. It is hereby made the duty of the County Attorney, whenever such cases are reported to him, to proceed immediately to prosecute such offenders.

Virginia Institution.—It has been decided to re-establish the department of articulation which was suspended a year ago. An oral teacher will be employed at the opening of the next term.

Wisconsin School.—Miss Agnes Steinke, one of the teachers, has been granted a year's leave of absence to take a normal course in the Royal Imperial Institution at Berlin, Germany. Her place will be supplied by Miss M. D. Fonner, formerly of the McCowen Oral School.

MISCELLANEOUS.

Aids to Hearing.—The *Lyon Médical* of February 28, 1897, has an article by Mr. J. Hugentobler, director of a school for the deaf at Lyons, France, on "The Auricular Instruction of the Deaf-Mute and the Transmission of Sound to the Nervous Centre through the Osseous System of the Cranium." Mr. Hugentobler believes strongly in auricular training and thinks sound may often be conveyed to the partly deaf through bone conduction (by placing the hands upon the head of the deaf person) better than through the ear, but he speaks with little respect of such artificial aids to hearing as trumpets, tubes, the audiphone, the audigène, etc., "instruments warmly recommended by a complaisant press, sold very dear, and successively abandoned." He describes a device of his own as giving more satisfactory results in aiding hearing through bone conduction. It consists of "a smooth ruler made of pine, without knots and with continuous fibres, 1.70 to 1.80 metres long, 0.035 metres broad, and 0.01 metres thick, under which four or five pupils can be placed at once. It is placed on the lower jaw, or the upper part of the thorax of the speaker, according to the nature of the sound to be formed, which is transmitted perfectly to the ruler and through that to the osseous system of the cranium and to the nervous centre of hearing." Just how the ruler is connected with the pupils the article does not state explicitly, but we infer it rests on their heads. Mr. Hugentobler expresses the belief that this discovery is "new and not without importance for articulation teaching," but it rather illustrates the truth of the proverb that there is nothing new under the sun. More than a hundred years ago Dr. A. E. Buchner of Halle, Germany, published a work entitled "An Easy and very Practicable Method to enable Deaf persons to Hear" (English translation, London, 1770), describing "a

method of conveying sound by means of an elastic solid body in contact with the bones of the head," and specifying "thin strips of wood of different lengths, one in particular six feet long, an inch broad, and of the thickness of the back of a knife, one end of which was to be held to the upper teeth of the person speaking, and the other end in like manner to the upper teeth of the deaf person spoken to." This and similar successful experiments made by Professor Porter in 1849, with "a strip of white pine from seven to eight feet long," were described in the *Annals*, vol. ii, pp. 39-40, and the *Annals Indexes* contain references to several later contrivances of more or less value for conveying sound through the cranial bones to the centre of hearing—the audiphone, the dentaphone, the electrophone, the Japanese otacoustic fan, etc. Mr. Hugentobler, however, is, so far as we know, the first to suggest the reaching of several pupils at once through bone conduction, as Mr. Currier has done through his Duplex Hearing-Tube.

La Nature for February 6, 1897, contains an article by Dr. George F. Jaubert, on the "*microphonographe*," recently invented by Dr. F. Dussaud, instructor in physics in the School of Mechanics at Geneva, Switzerland. Dr. Jaubert says that in January, 1896, Dr. Dussaud, touched by the lot of an unfortunate deaf girl, resumed a work which he had previously begun, and applied his efforts to find an apparatus which would increase at will the intensity of sound. After a year of experiments, he demonstrated the success of his apparatus on the 29th of December last before a company of physicians in the laboratory of physiology of the Sorbonne. The microphonograph is said to increase the intensity of sounds very greatly, so that a person can hear by its aid who is so deaf as to perceive nothing whatever when one shouts into his ear. It is not claimed that it will avail in cases of total deafness; but where there is the slightest vestige of hearing the effect is said to be wonderful, and it is hoped that in many cases very defective hearing may be educated and improved by its use. The instrument also records upon wax feeble sounds, such as breathing, the beating of the heart, and the walking of insects. Dr. Jaubert describes it as doing for the ear what the microscope does for the eye.

In the Indiana Institution experiments are in progress with the "lamprophoner," an instrument which, like the microphonograph, increases the intensity of sound. "A light tap on the metallic pillar which supports the transmitter sounds like the blow of a boilermaker's hammer on a boiler. A pencil drawn lightly against the pillar, making no perceptible sound to the unaided ear, comes through the instrument as a rough, scraping noise. A word spoken in an ordinary tone close to the transmitter sounds so loud as to be painful to one who can hear." The *Silent Hoosier* of April 1, 1897, from which these statements concerning the lamprophoner are taken, is not yet ready to speak concerning its results with the pupils. "Some who have been thought totally deaf have been able to distinguish sounds through the instrument, while others with some hearing cannot hear so well as by the speaking-tube."

Voice Culture.—The Superintendent of the Volta Bureau requests the publication of the following letter in the *Annals*, believing that its contents will be of interest and value to teachers of articulation. Persons desiring to obtain further information on the subject may communicate directly with Mrs. Curry, the writer of the letter, whose address is "School of Expression, 458 Boylston St., Boston, Massachusetts."

MY DEAR MR. HITZ: Under quite unfavorable circumstances, including two serious interruptions, I have this winter been teaching voice to Robert P., of A. Mrs. P. brought her son to me for instruction in voice. I examined him carefully, and diagnosed his case clearly. I felt sure that it was possible to teach him voice, and I began. Of course there were the usual difficulties in establishing communicable relations between Robert and myself, he being absolutely deaf. He does not read the lips with perfect accuracy. I do not read the lips at all, and I could not understand his vocal attempts at speech. This difficulty, however, caused me very little trouble. If I could not trust him to gather my meaning from lip-reading, I was careful to write out what I had to say, and so could be sure of accuracy through the use of written language. In this way I had little difficulty in teaching him.

I found the conditions for voice in the use of the vocal apparatus to be entirely ignored in the speech efforts. As a result, there was great muscular constriction in the throat, and labored effort in the use of all articulating agents. Consonant action was greatly exaggerated, and, as a consequence, vowel quality was almost entirely wanting. His vowels were

without discrimination, vocal grunts, between consonantal constrictions; if I knew what he was going to say, I might guess what they were. Of course, quantity in speech, or rhythmic relation of syllables, was destroyed or wanting.

I went to work, in the first place, and established the conditions of open throat, and taught him to become conscious of an easy open throat and oral passage. I then began to develop this condition of openness simultaneously with the forms of speech elements. I found great lack of precision in the articulative act in many elements; for instance, he made an L by starting with the point of the tongue raised against the spring of the palate, and opening the normal position, instead of starting with the tongue passive in the mouth, point back of the under teeth, and making the articulation against the upper gums with the recoil to the succeeding vowel.

Robert could not hold his tongue still to utter any vowel; thus the first condition of true vowel quality was lacking. Vowels result from definite fixed positions of the organs of speech, and require a definite action of the articulative agents. Voice requires a continuous stream of tone, to be modulated by articulation and vowel quality.

These simple principles I was able to make him understand, and in what seemed to me an incredibly short time I secured results. I very soon taught him to give a good, pure vowel AH, throat passage open, the tongue still, and activity centred in the back of the tongue. I very soon secured quality, ease, and naturalness in this vowel. He knew when his tone was in the throat; he knew when it was in the front of the mouth; he knew when he projected the tone as in speech. I could teach him also inflection or speech form of voice, and I also satisfied myself that voice in rhythmic form could be taught him, but I first confined myself to establishing voice conditions in those elements which were most incorrectly made. I saw also that to give him a natural use of the voice, I not only must establish a continuous stream of voice in the articulating actions, but that I must teach him to use all speech forms of voice, and among these quantity. I have satisfied myself that I can do this. I am at work now on exercises to develop skill in modulating vocal forms.

Now I feel, my dear Mr. Hitz, that I am able to contribute much to the training of the deaf to speak. I want this to reach those interested in this subject, who will make the best and wisest use of it. I myself do not wish to make a specialty of teaching the deaf, nor of teaching voice to the deaf; but I want teachers of the deaf to have what we can give them. I write to you as to one at headquarters of interest in this subject; I am ready to present this subject in any form that you may deem wisest, that will be most helpful to the teachers of the deaf.

I have been interested in the Kindergarten and pedagogical subjects most deeply; I have had wide experience in applying the principles of vocal training to meeting all kinds of needs. I have been a fellow-worker with Dr. Curry in the development of his methods of training the speak-

ing voice. I believe in the training of the body, and the voice through the mind, according to pedagogical principles, and with definite technical exercises; and I can say to you that it is this knowledge and use of pedagogical principles that has enabled me to present this work with practical results to deaf students.

I offer to your Volta Bureau the result accomplished, to be used for the benefit of teachers of the deaf, in whatever way the Bureau should determine to be most practically wise. The only condition I make is that the method of practically combining voice with articulative form be attributed to the School of Expression.

Yours very respectfully,

ANNA BARIGHT CURRY.

HON. JOHN HITZ,
Volta Bureau,
Washington, D. C.

The Education of the Deaf-Blind.—Mr. W. Wade, of Oakmont, Pennsylvania, who takes an active interest in the education of the deaf-blind, requests us to remind the readers of the *Annals* that the Perkins Institution at Boston is not the only place where such children can be taught. It is an excellent school and much credit is due to its director and teachers for showing what can be accomplished in this direction, but it would be a great pity if deaf and blind children who for any reason cannot enjoy its privileges should be deprived of all opportunities for receiving an education, as Mr. Wade says some have been, through the erroneous belief that it is impossible for them to be instructed anywhere else. They can be successfully educated in any good school for the deaf or the blind, as they have been and are now in the Hartford and New York Schools for the Deaf and in the Iowa School for the Blind, provided the school is able to supply a special teacher, or funds for that purpose can be obtained from benevolent persons interested.

The National Educational Association.—At the meeting of the National Educational Association to be held in Milwaukee, Wisconsin, July 6-9, 1897, a "Round Table" devoted to the interests of the deaf will be held on one afternoon under the chairmanship of Dr. Joseph C. Gordon of Gallaudet College. An address will be delivered by Dr. Alexander Graham Bell

before the general session of the Association, and a "living exhibit" and an exhibit of class-room work will be given under the auspices of the Milwaukee Phonological Institute in one of the school buildings of the city during the four days of the Association. All teachers of the deaf are cordially invited to participate in the Round Table and all schools to co-operate in the two exhibits. It is also proposed to organize an "Institute for teachers of the deaf" immediately before or after the session of the Association, provided sufficient interest is manifested by teachers. A circular issued by the local committee of the Association and sent to all schools gives the necessary information regarding transportation and accommodations.

Congress of the British Deaf and Dumb Association.—The next Congress of the British Deaf and Dumb Association will meet in London from the third to the ninth of August, 1897. The daily sessions will be held in the Lecture Hall of St. Saviour's Church, Oxford street, and there will be excursions to places of historical interest. It is expected that there will be an attendance of the deaf and their friends from the United States, France, and other foreign countries, as well as from all parts of the United Kingdom. Intending visitors are invited to communicate with the honorary secretaries, 419 Oxford street, London, W.

A meeting of the National Association of Teachers of the Deaf is also to be held this summer, but whether it is to be held at London or Glasgow is not yet decided.

The Deaf and the Civil Service.—Mr. F. P. Gibson, in a letter published in the *Deaf-Mutes' Journal* of March 11, makes the following statement concerning the admission of the deaf to the civil service in Chicago. It will be seen that the deaf have the same rights there that, as was shown in the *Annals* some years ago, they have in connection with the civil service of the United States :*

J. E. Gallaher, the secretary of the local club, having heard the deaf were excluded from the civil service of the city of Chicago, addressed a

* See the *Annals*, xxx, 300, and xxxviii, 274-277.

letter to the secretary of the Commission in order to satisfy himself as to the same. The following is the reply received :

CIVIL SERVICE COMMISSION,
CHICAGO, March 5, 1897.

J. E. GALLAHER, Esq.,
Chicago, Ill.

DEAR SIR: I beg to acknowledge receipt of your communication of the 4th inst., inquiring if there is anything in the Civil Service Law which excludes deaf-mutes from employment in the service of the city.

There is no such provision. The law does, however, require that all examinations shall contain "tests of physical qualifications and health," and also that "the examinations shall fairly test the relative capacity of the persons examined to discharge the duties of the positions to which they seek to be appointed."

A deaf-mute would, under the above provisions, be at some disadvantage in a competition open to all.

Yours truly,

JOHN M. CLARK,
President.

From the above it will be seen that the deaf are not excluded. That they would be "at some disadvantage" on account of their infirmity is but natural, but it is for them to succeed in spite of their disadvantage. In every occupation they are placed at a disadvantage in competition with the hearing. There is nothing to prevent any bright Chicago deaf-mute from taking an examination for a position he may feel capable of filling.

Deaf Artists.—Two pictures of American deaf artists are admitted to the French *salon* this year; one by Mr. John G. Saxton, of Troy, New York, and another by Mr. Cadwallader L. Washburn, of Minneapolis, Minnesota. Both these artists are graduates of Gallaudet College.

David Buxton.—Dr. David Buxton, one of the most eminent English teachers of the deaf, died at his home in Manchester, England, April 23, 1897, of influenza, aged 76. Dr. Buxton was a native of Manchester. At the age of twenty he became a teacher in the Old Kent Road Asylum, London, remaining there ten years. In 1851 he was appointed headmaster of the Liverpool School, and filled that position for twenty-six years, during which time the number of pupils increased from thirty to one hundred. In 1878 he was appointed Secretary of the Ealing School and Training College for Teachers, and in 1889 Secretary of the Manchester Insti-

tute for Adults. In 1892 he became Superintendent as well as Secretary of this Institute, and he faithfully discharged the duties of that office up to the time of his death.

While at the head of the Liverpool School Dr. Buxton read papers relating to the education of the deaf before the British and Social Science Associations, the Church Congress, etc., wrote the article on the deaf in Chambers' Cyclopædia, and contributed valuable articles to the *Annals* and other periodicals. When the *Quarterly Review of Deaf-Mute Education* was established in 1886, he was chosen one of the Editorial Committee, and served continuously in that capacity during the rest of his life. He was a fluent and graceful writer, expressing his convictions candidly and firmly, but always with perfect courtesy. He was a Fellow of the Royal Society of Literature, and in 1870 received the honorary degree of Doctor of Philosophy from Gallaudet College.

Publications.—We have received the following publications since the issue of the last number of the *Annals*:

BÉLANGER, AD. Catalogue de la Bibliothèque de l'Institution Nationale des Sourds-Muets de Paris. Première Partie: Enseignement des sourds-muets, Ouvrages en langue française [Catalogue of the Library of the National Institution for Deaf-Mutes at Paris. Part First: Instruction of Deaf-Mutes, Works in the French Language]. Paris: The National Institution. 1897. 8vo, pp. 98.

BELL, ALEXANDER MELVILLE. The Science of Speech. Washington, D. C.: The Volta Bureau. 1897. 12mo, pp. 58.

BOYER, AUGUSTE. Théophile Denis, Fondatore del Museo Universale dei Sordomuti di Parigi. Notizia Biografica, Traduz. di E. Scuri [Biographical Sketch of Théophile Denis, Founder of the Universal Museum of Deaf-Mutes at Paris, translated by E. Scuri]. Napoli: E. Pietrocola. 1896. 8vo, pp. 12.

DENIS, THÉOPHILE. Catalogue Sommaire du Musée Universel des Sourds-Muets [Catalogue of the Universal Museum of Deaf-Mutes]. Paris: The National Institution. 1897. 8vo, pp. 68.

FORNARI, P. Il Sordomuto e la sua Istruzione [The Deaf-

Mute and his Instruction]. Milano: Ulrico Hoepli. 1897. 16mo, pp. 232. [A treatise intended not so much for teachers of the deaf, for whom the author has written a fuller work ("Course of Pedagogy," reviewed in the *Annals*, xxxix, 131), as for normal students and teachers in general, parents, and philanthropists. It constitutes one of the famous five hundred "manuals" on various subjects published by Mr. Ulrici Hoepli, a name highly esteemed by all lovers of Italian literature and scholarship.]

GARRETT, MARY S. *Homes for Teaching Deaf Children to Speak*. Delivered at the Home Congress in Boston, October 17, 1896. 8vo, pp. 7.

GONNELLI-CIONI, ANTONIO. *Educhiamo i Fanciulli Deboli di Mente* [Let us Educate the Feeble-Minded Children]. Milano: Tipografia del Commercio. 1896. 8vo, pp. 38.

LYON, EDMUND, and LYON, CAROLYN T. *State Board of Charities. Report on the Deaf by the Inspectors Appointed by the Board, Taking the place in the Annual Report of the usual Report of the Standing Committee on the Deaf*. Transmitted to the Legislature of the State of New York, with the Thirtieth Annual Report of the Board, February 25, 1897. 8vo, pp. 90. [The examination papers published in this Report, which were used in all the New York schools last year, will afford excellent tests for any school.]

SHAW, J. G. *The Deaf Child's First Reader*. Preston: The Cross School. 1897. 12mo, pp. 24.

Reports of Schools, printed in 1896: Cambrian (Swansea, Wales), Georgia, Jews' (London, England), Manchester (England), North Dakota, Pennsylvania, Pennsylvania Home, Tokyo (Japan), Washington State, West Virginia, Wisconsin; printed in 1897: Bristol (England), Liverpool (England), Mexico, Ontario.

Report of the Pennsylvania Institution for the Blind, 1896.

Report of the Missions to the Adult Deaf and Dumb of Ireland (Province of Armagh), 1895-'96.

ADVERTISEMENTS.

A SINGLE male hearing teacher having had nine years' successful experience desires a position. Through lifelong association with the deaf, he is a fluent signer. He is in vigorous health and can instruct any grade. He has been connected with newspapers for the deaf six years. He can furnish best state, professional, and private references. Correspondence solicited. Address "Teacher," care of the Editor of The Annals, Kendall Green, Washington, D. C.

WANTED, by a lady with experience as a teacher, a position in a deaf-mute school, or as governess to a deaf-mute child. References given. Address H. E., 146 West 42d St., New York City.

WANTED: A position as art teacher, to teach drawing, charcoal drawing, oil and water painting, and china painting. Good at needle-work and can use the manual alphabet rapidly. Good reference given. Address L. Charlen Vanderloef, Montgomery, Orange County, New York.

WANTED, by a young lady, a position as teacher of articulation in a school for the deaf. Best of references given. Address A. J., 232 N. Garfield Ave., Columbus, Ohio.

A DEAF man, unmarried, graduate of Gallaudet College, desires a position as teacher in a school for the deaf or in a private family. Address Michael Madden, care of Miss Mary Madden, Forest, Ontario, Canada.

AMERICAN ANNALS OF THE DEAF.

VOL. XLII, No. 5.

SEPTEMBER, 1897.

A MESSAGE TO ALL INTERESTED IN PROMOTING THE EDUCATION OF THE DEAF IN EUROPE.

WASHINGTON, D. C., U. S. A., *April*, 1897.

To the Boards of Management of Schools for the Deaf, and to all interested in promoting the education of the deaf in Europe,

Greeting,

from the Officers and Directors of the Columbia Institution for the Deaf and Dumb, at Washington, D. C., United States of America.

The Institution committed to our care having completed the fortieth year of its existence, we deem the present a fitting occasion to answer in some detail the many inquiries which have come from friends of the cause in Europe concerning the progress of the education of the deaf in our country.

The oldest school existing in the United States was established in 1817, eighty years ago. The life of the Columbia Institution covers, therefore, just one-half of the period embraced in the history of schools for the deaf in America.

In 1857 there were nineteen schools, the buildings and grounds of which had cost \$1,371,736, the annual sup-

port of which involved an expenditure of \$285,416, and in which 1,771 pupils were being educated.

At the present time there are eighty-nine schools, with 11,054 pupils under instruction during 1896.

Thirty-four of these schools are in private hands, or are day-schools connected with the common-school system of some city or town. No statistics are available as to the cost of buildings and current expenses of these. For the fifty-five public institutions more than \$11,000,000 have been expended on buildings and grounds, and nearly \$2,000,000 are appropriated, annually, for current expenses. In every State of our Union public provision is made for the education of the deaf, thirty-nine States having schools of their own, and the six States without them providing for the education of their deaf children in the schools of the neighboring States.* Industrial departments exist in all but two of the public schools, and in fourteen of the private and day schools. In the larger schools from five to seventeen different industries are taught.

Up to the year 1867 the manual method of instruction prevailed in all schools, and very little speech was taught. But in that year several circumstances combined to call attention to oral teaching. Schools in which the oral method was to be used exclusively were established in New York and in Massachusetts. In April of that year the President of the Columbia Institution was authorized by the Board of Directors to make an extensive examination of schools for the deaf in Europe, with the view of determining to what extent, if at all, it would be desirable to introduce the oral method into our institution. Forty-four schools were visited, and the report made to the Board recommended strongly that every deaf child should be given the opportunity to learn to speak.

* The Census of 1880 showed that at that time there were 41,383 deaf-mutes in the United States.

The Directors of the Columbia Institution invited a conference of the principals of all the schools in our country to be held in Washington in May, 1868, to consider the recommendations of their president in regard to speech-teaching, and other matters of interest in the education of the deaf.

Fifteen principals, one vice-principal, and two ex-principals, among whom were the most prominent and influential in the country, attended this conference.

The policy of introducing the oral method was fully discussed, and the following resolution was unanimously adopted :

*“Resolved, That in the opinion of this Conference it is the duty of all institutions for the education of the deaf and dumb to provide adequate means for imparting instruction in articulation and lip-reading to such of their pupils as may be able to engage with profit in exercises of this nature.”**

The effect of this action, along with the influence of the oral schools and their friends, gave a notable impulse to the cause of oral teaching, with the result that within a few years all the larger schools carried into effect the recommendations of the Conference at Washington.

In his examination of European Schools in 1867 the President of our Institution was impressed with the fact that the best results which came under his observation were attained, not by the practice of any single method, but by a judicious combination of the two which had for many years been rivals in Europe. He therefore recommended the general adoption of a Combined System, in which the most valuable and efficient elements of the manual and oral methods should be retained, and that the use

* This meeting was the first of a series of Conferences of Principals which have been held quadrennially in other institutions for the deaf, the discussions of which have done much to develop and unify the system of instruction in our country.

of these respectively should depend on the capacities and needs of those who were to be educated.

Careful experiment in the older schools, and frequent observation of results in the pure oral schools, has led to a prevailing conclusion in the minds of teachers of the deaf in our country that a considerable proportion of the deaf as a class are not capable of success in speech. And a majority of our teachers are of the opinion that under many conditions certain features of the manual method may be made use of to advantage.

These views were given an authoritative sanction at a meeting of the Convention of American Instructors of the Deaf held in California in 1886, at which advocates of both methods were present, by the unanimous adoption of the following preamble and resolution :

"Whereas the experience of many years in the instruction of the deaf has plainly shown that among the members of this class of persons great differences exist in mental and physical conditions and in capacity for improvement, making results easily possible in certain cases which are practically, and sometimes actually, unattainable in others, these differences suggesting widely different treatment with different individuals, it is, therefore,

"Resolved, That the system of instruction existing at present in America commends itself to the world, for the reason that its tendency is to include all known methods and expedients which have been found to be of value in the education of the deaf, while it allows diversity and independence of action, and works at the same time harmoniously, aiming at the attainment of an object common to all."

This broad platform was made a part of the Constitution of the Convention, adopted at Flint, Michigan, in 1895, and the Convention has since been incorporated by a special act of the Congress of the United States.*

* The Convention of American Instructors of the Deaf is an organization, membership in which is open to all persons actually engaged in the

The manner in which the oral teaching of the deaf has become general in our country is deserving of special notice.

The purely oral schools, the first of which were established thirty years ago, have not become numerous.

Of the fifty-five public schools of the country (not including day-schools), only five sustain the pure oral method, and these five contain but 567 pupils out of 10,086 in all the public schools. But speech is taught in every one of the other schools, in connection with a greater or less use of features of the manual method. In the fifty public schools in which a Combined System prevails, with a pupilage of 9,519, more than 4,000 pupils are taught speech.*

From these statements, two conclusions may be drawn : (1) that in the public schools for the deaf in the United States all the pupils are given the opportunity to learn to speak ; and (2) that with those who cannot attain substantial success, instruction in speech is not continued.

The present attitude in our country, after thirty years of effort to supplant the manual method by the oral, is, therefore, unmistakably in favor of a Combined System, in which the best effects of both methods may be secured.

The work to which the Columbia Institution has chiefly devoted itself since its incorporation has been the establishment and development of an advanced department, a college, in which the education of the deaf might be car-

education of the deaf. Its general meetings are held triennially, and local meetings may be held more frequently. Fourteen general meetings of the Convention have been held, with great profit, at different points in the United States and in Canada.

An association is also in existence "to promote the teaching of speech to the deaf," which has had several meetings, the effect of which has been to heighten public interest in this feature of the education of the deaf.

*The thirty-four private and day schools average about twenty-five pupils each, having in all, during 1896, 968 pupils, about one-half of whom were in pure oral schools.

ried forward so as to include courses of study in the higher Mathematics and Sciences, General History and Literature, Sociology and Philosophy, the Ancient and Modern Languages, and such technological studies as the deaf might be found capable of pursuing with profit.

The success of this undertaking, entered upon in 1864, has justified, beyond all question, the wisdom of those who devised and proposed it to Congress.

Five hundred and eight young men and young women have received the training of the College, and have proved by their intellectual development that deafness presents no obstacle to a very high degree of mental culture.

The practical advantages of the higher education to these young people have been marked and great, as will be shown by an enumeration of some of the occupations that have opened to them in consequence thereof.

In 1893 the following report was made :—

“ Fifty-seven who have gone out from the College have been engaged in teaching ; four have entered the Christian ministry ; three have become editors and publishers of newspapers ; three others have taken positions connected with journalism ; fifteen have entered the civil service of the Government—one of these, who had risen rapidly to a high and responsible position, resigned to enter upon the practice of law in patent cases in Cincinnati and Chicago, and has been admitted to practice in the Supreme Court of the United States ; one is the official botanist of a State, who has correspondents in several countries of Europe who have repeatedly purchased his collections, and he has written papers upon seed tests and related subjects which have been published and circulated by the Agricultural Department ; one, while filling a position as instructor in a Western institution, has rendered important service to the Coast Survey as a microscopist, and one is engaged as an engraver in the chief office of the Survey ; of three who became draughtsmen in architects' offices, one is in successful practice as an architect on his own account, which is also true of another, who completed his preparation by a

course of study in Europe;* one has been repeatedly elected recorder of deeds in a southern city, and two others are recorders' clerks in the West; one was elected and still sits as a city councilman; another has been elected city treasurer, and is at present cashier of a national bank; one has become eminent as a practical chemist and assayer; two are members of the Faculty of the College, and two others are rendering valuable service as instructors therein; some have gone into mercantile and other offices; some have undertaken business on their own account; while not a few have chosen agricultural and mechanical pursuits, in which the advantages of thorough mental training will give them a superiority over those not so well educated. Of those alluded to as having engaged in teaching, one has been the principal of a flourishing institution in Pennsylvania; one is now in his second year as principal of the Ohio Institution; one has been at the head of a day-school in Cincinnati, and later, of the Colorado Institution; a third has had charge of the Oregon Institution; a fourth is at the head of a day-school in St. Louis; three others have respectively founded and are now at the head of schools in New Mexico, North Dakota, and Evansville, Indiana; and others have done pioneer work in establishing schools in Florida and in Utah."

In 1891 a Normal Department was established in connection with the College, the object of which is to train a few well-educated young men and women, each year, in both the manual and oral methods of teaching the deaf. The students in this department are not deaf-mutes. Consequently, they are able to render valuable service in the correction and development of the speech of the regular students of the College.

Twenty-six young men and six young women have been trained in our Normal Department, a majority of whom, having received the Bachelor's degree in other colleges,

* This young man prepared, two years ago, a complete set of plans and specifications for a dormitory for our institution, in accordance with which the building was satisfactorily erected.

have been made Masters of Arts at the conclusion of their course with us.

The regular students of our College receive degrees in the Arts, in Science, Letters, or Philosophy, according to the courses of study which they have pursued.

The liberality of Congress in providing nearly all the funds needed for the upbuilding and support of the College has been marked from the year of its establishment.

Suitable grounds and temporary buildings were provided by Congress before the College was opened; and, from time to time, additions have been made until the aggregate of the benefactions of the Government for grounds and buildings exceeds half a million of dollars.

The annual appropriation by Congress for the support of the College is over fifty thousand dollars, and sixty poor students from different parts of the country are received without charge for board and tuition. The number of students under instruction in 1896 was one hundred and twelve. After what has been said as to our opinions concerning methods, it is hardly necessary to add that the teaching of the College is on the Combined System.

Opportunity is given to every student to learn to speak—frequent drill in speech is afforded to all who need and desire it. Much intercourse between students and their instructors and among students themselves is by speech.

The chief use of the sign-language is in public lectures and addresses. The manual alphabet is largely employed in conducting the recitations of the class-room, for the reason that it is believed to furnish the best means of quick and accurate communication for work in which an entire class can take part understandingly.

In closing this communication, the Officers and Directors of the Columbia Institution, speaking for their colleagues throughout the United States, beg to acknowledge the debt of gratitude due from our country to Europe in the matter of the education of the deaf; for we have always

to remember that the essential features of the methods we now make use of have come to us from the schools of the Old World, the founders and promoters of which will ever be held in grateful remembrance by the deaf-mutes of America and their friends.

And we hope it will not be felt in any quarter that the suggestions of this paper are offered in any spirit of self-glorification.

We and our predecessors have endeavored to discharge as faithfully as possible, during forty years, the duties devolved upon us by the Government of the United States. We have striven to discover and put in practice the methods which seem likely to produce the best results. We have undertaken to solve the problem of the higher education of the deaf. And it will be a source of happiness to us if the presentation of the results of our labors to our colleagues in Europe shall lead to the betterment of the condition of the deaf in that part of the world. For if this shall come to pass, we shall feel that something, however little, will have been done towards discharging the obligations under which we have long rested.

Invoking the continued blessing of Heaven on the cause we all have at heart, we are, with assurances of the highest consideration,

Faithfully yours,

WILLIAM McKINLEY.
EDWARD M. GALLAUDET.
JOHN B. WIGHT.
LEWIS JOHNSON DAVIS.
HENRY L. DAWES.
JOS. R. HAWLEY.
EDWARD C. WALTHALL.
SERENO E. PAYNE.
JOSEPH D. SAYERS.
BYRON SUNDERLAND.
JOHN W. FOSTER.
WILLIAM L. WILSON.

PRESIDENT GALLAUDET'S MISSION TO THE
DEAF AND THEIR FRIENDS IN EUROPE.

U. S. MAIL STEAMSHIP PARIS,
ON THE ATLANTIC, *August 9-12, 1897.*

To the Editor of the Annals :

I KNOW it is a little out of the ordinary for the *Annals* to publish letters, but in attempting to put into shape a narrative of some of my recent experiences in Europe among the deaf, in and out of schools, I find the epistolary form best suited to the story I have to tell, and so will venture to ask the suspension of your prevailing rule in my favor for this time.

I must also ask your indulgence, and that of your readers, for the frequent reference I shall be compelled to make to demonstrations of regard I have received in many quarters, assuring you and them that I have looked upon them as by no means personal, but as given to me because I happened, for the time being, to stand as a recognized exponent and champion of a cause in which the adult deaf-mutes of Europe are to-day most earnestly enlisted. Feeling thus, I shall not hesitate to speak freely of incidents, the relation of which might, under certain conditions, be taken as indicative of vanity. That nothing is further from my thought and feeling I am sure those who know me well will believe.

Since landing at Naples on the 20th of May, I have visited seventeen schools for the deaf in the cities of Naples, Rome, Milan, and Como in Italy ; Gratz and Vienna in Austria ; Breslau, Berlin, Leipsic, and Frankfort-on-the-Main in Germany ; Zurich and Geneva in Switzerland ; Paris, France ; and Belfast in Ireland.

In these schools, while I have seen much good work done, have heard excellent speech from many pupils, and

have observed ready lip-reading in many instances, I have found nothing essentially different from what fell under my notice thirty years ago when I examined a much larger number of schools in Europe, and visited eleven of the seventeen lately inspected.

In more than a few classes I noted that a number of pupils were not brought forward for exhibition, though most of them, with upraised hands, made known their desire to be heard. The utterance of many who were allowed to speak was difficult and practically unintelligible. Painful repetitions on the part of teachers were often necessary, and sometimes failed to convey the desired information. My knowledge of the sign-language made it easy for me to recognize frequent resorts to this means of communication by teachers and pupils which would escape the notice of one less familiar with that language. In some of the so-called oral schools signs were freely used in the class-room, as also in chapel exercises.

In conversations with principals and teachers in oral schools I was many times assured that the oral method was often insufficient, that more than a few pupils failed of success in speech, and that features of the manual method would be gladly accepted and made use of, were such a course not forbidden by superior authority.

In a class in one oral school I saw every spoken word interpreted by the pupils into signs, so as to make sure that the meaning was understood. In another oral school I found the sign-language employed in religious instruction, in all addresses to the pupils as a body, to a considerable extent in the school-room, and without restriction among the pupils out of school.

At the same time I heard as good speech in this school as in those from which it was attempted to banish signs.

The only school avowedly conducted on the Combined System which I saw in session (that at Belfast being in vacation at the time of my visit) was the one at Gratz, in

Austria. Of the results reached in this school, in speech, in mental development, and in a general appearance of intelligence and vivacity among the pupils, I received a very favorable impression. I am convinced that the effort to banish signs from a school for the deaf exerts a repressive and narrowing influence on the intellectual growth of its pupils.

I will not enlarge further on what I observed in schools for the deaf. I am sure I held my mind open for any new impressions that might present themselves, and equally certain that I saw nothing different from what fell under my observation thirty years ago—nothing to change or modify the conclusions I then reached as to the relative value of methods or as to the desirability of bringing them together into a Combined System.

Much more interesting and surprising were my experiences with the educated adult deaf-mutes I encountered, of which I will now endeavor to give some account.

While in the Custom-House at Naples, just after landing, my son brought me word that two deaf men were looking for me. These proved to be Francesco Guerra, well known to many in America by his writings in European journals for the deaf, and Pietro Sensale, a decorative artist of no mean ability. The welcome to Italy I received from these two men, emphasized by floral offerings and demonstrations of southern cordiality, were most touching. Mr. Guerra had selected a hotel for me, and they both accompanied me thither. Several other deaf-mutes were at the Custom-House. During my stay in Naples Guerra and Sensale were constant in their attentions. Mr. Guerra's brother, a Judge of the Court of Appeals, called on me and received me at his own home. It would be impossible for me to repeat all that these two intelligent deaf-mutes said to me as to the condition of the great mass of the educated deaf of Italy, of the insufficiency of the oral method, and of their hope that a reform

in methods was coming. It will be enough for me to say that they were most earnestly devoted to the cause of the Combined System, and felt that the deaf of Italy would never be properly educated until that system became prevalent.

In Rome I had several interviews with Francesco Micheloni, a highly educated deaf man, with a good command of speech, who holds a position in the Royal bureau of statistics. Mr. Micheloni was the editor of *L'Avvenire dei Sordomuti*, a paper published in the interest of the deaf of Italy in the year 1896. He attended the Geneva Congress of Deaf-Mutes of that year, as a representative of the Minister of Public Instruction at Rome, and made a report to that official, in which he warmly endorsed the recommendations of the Congress in favor of the Combined System, though he had been educated in the Royal Institution at Milan.

Mr. Micheloni introduced me to his chief, Mr. Luigi Bodio, Director General of Statistics, who has a deaf daughter, taught under the oral method at Milan, and whom I met a few days later in that city. Mr. Bodio was much interested in what I was able to tell him of our American schools and methods, and said his experience and observation led him to believe that for the general education of the deaf the Combined System was superior to any single method.

My first meeting with any considerable number of deaf-mutes was at Vienna, where, shortly after my arrival, I was called on by Bernard Brill, the veteran editor of the *Taubstunnen-Courier*, who invited me to accept the hospitality of the *Taubstunnenverein* of Vienna. At the time appointed, Mr. Brill and Mr. Loew (a cousin of Jacques Loew, well known to the deaf-mutes of New York and Chicago) called for me and accompanied me to a restaurant where the *Verein* was in the habit of meeting. It was a surprise to me to find these German-speaking deaf-mutes

(for they could all speak and some of them very well), organized precisely as the deaf-mutes of many of our American cities are, using a language of signs which I understood with little difficulty, addressing me in this language and comprehending easily the responses I made in signs such as I am accustomed to use at home. My reception by the deaf of Vienna was most cordial. As I spoke to them in my mother tongue I caught one saying to another, "Is he not a deaf-mute? He uses signs like one." I certainly felt at home among these deaf friends, and no anxiety about the tenses and genders of a foreign language marred the pleasure of my evening with them. A bright and intelligent young teacher from the Imperial Royal Institution was present, who had deaf-mute relatives, and who used signs like one "to the manner born."

As I stepped out of the train at Breslau and looked up and down the platform to see which way to go, a man of towering form and of size in proportion confronted me with: "This must be Dr. Gallaudet," and on my smiling assent, the giant folded me in his arms and kissed me on both cheeks. This was Mr. Heidsiek, well known to the readers of the *Annals* as the courageous German teacher who has dared to declare for a Combined System of educating the deaf. Immediately behind him came a score and more of men and women to give me welcome to Breslau. They were representatives of the *Taubstummenverein* of that city. Presently a maiden of a dozen summers offered me a bouquet of flowers, and began addressing me in English, as follows:

"Dear Sir: You will allow me to speak for the present deaf-mutes and all the others of Breslau, and to welcome you heartily in this town. The name of Gallaudet excites pleasure and gratitude in the hearts of all German deaf and dumb. They are very happy to see the distinguished friend and adviser of the American deaf-mutes, and I hope that it will please you in this town, and that your voyage will be a great good for the deaf and dumb."

The little girl was a daughter of Mr. Heidsiek, who, with the help of her mother, a good English scholar, had prepared to bid me welcome in the language of my country. After a short time spent in exchanging salutations with the deaf, I left them with the understanding that I was to meet them and others socially in the evening.

At night Mr. Heidsiek accompanied me to a banquetting hall in one of the large restaurants, where I found upwards of a hundred deaf-mutes assembled to meet me. My place at the table was decorated with flowers, and everything possible was done to assure me of the regard of the deaf of Breslau. Speeches were made in the language of signs, and opportunity was afforded for my meeting and conversing with the officers of the *Verein* and others. During my stay of two days in Breslau Mr. Heidsiek was unremitting in his attentions, inviting me to dine at his home, and escorting me to the Institution in which he teaches—one of the largest, by the way, in Germany, and, I may add, one in which the results, as I observed them, seemed to be of the best.

My next stopping-place in Germany was Berlin, where, though I saw fewer deaf-mutes than in Breslau, I met many of them in their homes under very interesting conditions. The deaf-mutes of Berlin, through one or more of their societies, have purchased a large building, in which there are many separate apartments suitable for the occupancy of small families. These are rented exclusively to deaf-mutes, many of whom carry on their trades, such as tailoring, shoemaking, seamstress work, and the like, in their own homes. Through the courtesy of Mr. Fritz Zitelmann, a prominent deaf-mute of Berlin, I was able to visit these homes of the deaf and converse with many of their inmates. A certain part of the building was used for the care of aged and infirm deaf-mutes, who needed assistance; and I found a very intelligent hearing lady, Mrs. Anna Schenck, whose husband was a deaf-mute, in-

stalked in the building as President of the "Union of Deaf-Mute Women of Berlin." Mrs. Schenck also edits and publishes the *Taubstummen-Freund*, and her brother, Mr. Furstenberg, is at the head of a school for deaf-mutes in Chili.

I quote from my journal record of a conversation I had with Mrs. Schenck one evening in her rooms :

"I had much conversation with her about the deaf in Germany and the system of education employed. She was emphatic in saying that the results of the pure oral method were very unsatisfactory. The deaf, she said, were little benefited by the speech they gave so much time to acquire; they made little use of it. They were never able to mingle much with hearing people, and they had most pleasure in associating with each other. They conversed in signs mainly. Mrs. Schenck fully confirmed my views as to the Combined System and said the German schools would do much better work if they would adopt some of our American methods."

After leaving the deaf-mute settlement, I had an opportunity of spending a couple of hours with some of the leading members of the Berlin *Taubstummenverein*, who had assembled on very short notice to meet me. Among these was Mr. Carl Rumpf, President of the *Centralverein für das Wohl der Taubstummen zu Berlin*, who resides in the building already described, at 45 Elisabeth Strasse, and has taken a leading part in the development of the movement to provide homes for the deaf at moderate cost.

The largest assemblage of deaf-mutes, in Germany, brought together to meet me was in Leipzig, the home of Heinicke. The chief mover in arranging for this gathering was Mr. A. M. Watzulik, of Altenburg, very near Leipzig, who will be remembered by many in America as one of the brightest of the foreign delegates to the International Congress of the Deaf, at Chicago, in 1893. Mr.

Watzulik had the hearty co-operation of the officers of the Leipsic *Taubstummenverein*, President Robert Sandig, Secretary Otto Kresse, Treasurer Hermann Hoffmann, and others, in arranging for my reception. A committee of seven waited on me at my lodgings a few hours after my arrival in Leipsic, and on the evening of the following day called to conduct me to the hall where the "Commers" was to be held. There I found some two hundred deaf-mutes assembled with Mr. Voigt, Director of the Institution for Deaf-Mutes, and a number of his teachers.* Nothing could exceed the cordiality and regard with which I was received. My place at table was profusely decorated with flowers, deaf-mutes were in attendance from adjoining cities and towns, thirteen coming from Berlin, most of whom were to make their journey back during the latter part of the night so as to be at their work the next day. Letters and telegrams of congratulation and respect were presented from *Taubstummenvereins* in Brunswick, Zittau, Munich, Vienna, Altwasser, Bonn, Cologne, Worms, Cassel, Altona, Frankfort-on-the-Main, Plauen, Görlitz, and Nuremberg. Speeches were made in the sign-language by Mr. Watzulik, the officers of the Verein, Mrs. Anna Schenck, and others. My responses seemed to be easily understood and were received with evident satisfaction. Mr. Voigt, Director of the Leipsic Institution for Deaf-Mutes, was called up and made a lively address in speech and the language of signs, *pari passu*, vividly reminding me of similar efforts I have seen and heard from our old friend Dr. Isaac Lewis Peet. Mr. Voigt showed himself to be what few oral teachers of the deaf in America are, a master of the language of gestures. The social intercourse of the Leipsic "Commers" was prolonged to a late hour, and I had a good opportunity for personal conversation with many present. I must not forget to mention that, in the

* Mr. Voigt had previously called on me at my lodgings.

course of the evening, Mr. Sandig, President of the *Allgemeine Taubstummenverein zu Leipzig*, presented me, in behalf of his society, with a beautiful printed certificate of honorary membership, a testimonial I shall preserve with great satisfaction.

My visit on the following day to the school founded by Heinicke was one of unusual interest. I was given the freedom of all the class-rooms, and visited many. I was invited and encouraged to examine pupils myself. I found the average facility in speech and lip-reading equal to the best I have ever seen in any school. And yet, while limitations were put upon the use of signs, especially in the upper classes, they were not infrequently employed to clear up a difficulty or to elucidate a meaning that was obscure. Signs were not interdicted among the pupils, and I was told that they were used in religious instruction and when the whole body of pupils were addressed together. I could not avoid the reflection that but little further progress was needed in this school, in the employment of features of the manual method, to justify its being classed as a Combined-System school. To Director Voigt, and to his chief assistant, Mr. Göpfert, I am greatly indebted for many courtesies shown me during my stay in Leipsic.

My next meeting with the deaf was in Frankfort-on-the-Main, where I tarried for a single night only. On reaching my hotel I learned that a deaf gentleman had already been inquiring for me, and within half an hour he came again. This was Mr. Adam Brehler, President of the *Verein* of Frankfort. An impromptu meeting of the deaf of the city had been arranged for that evening, and a score or so gave me a most cordial welcome. There were no formal speeches, but we spent two or three hours in pleasant social intercourse, comparing notes as to the condition of the deaf in Germany and the United States. Much interest was shown in the higher education of the

deaf, and I had to answer many questions about the College.

Before speaking of the deaf-mutes of Geneva, I must record a very interesting interview which I had in Zurich, with, probably, the oldest living teacher of the deaf, Mr. Schibel, now over ninety-one years of age, and who was Director of the school at Zurich for sixty years, retiring from active labor only five years ago. I first met Mr. Schibel in 1867, when I spent an instructive day in his school. He retains his physical and mental powers in a remarkable degree, and was overjoyed to meet me again. Though always an enthusiastic teacher of speech, I found him now, as in 1867, far from being an extremist, admitting that not all the deaf could learn to speak well, and that signs were often helpful in teaching. When I laughingly said to him that if he would remain in Zurich ten years longer, reaching his centennial, as he seemed quite likely to do, I would try to come and see him again, he replied with tears in his eyes: "God only knows. Our next meeting may be in Heaven." With most affectionate embraces he bade me good-bye, with every good wish for the continued success of our College, in reference to which he had shown the greatest interest.

A few days after my arrival in Geneva I received a call from Mr. Jules Salzgeber, President of the Geneva Congress of the Deaf of 1896, and Mr. Jacques Ricca, Secretary of the same Congress. These gentlemen were, naturally, prominent among the deaf of Geneva, and invited me to meet with them the following Sunday evening. This interview was of equal interest with those I had at Frankfort and Berlin. The number in attendance was not as large as it would have been had not several members of the "Union" been away on their vacations. At the close of the evening President Salzgeber, on behalf of the Union, presented me with a fine photograph of the International Congress of the Deaf of 1896, of which, as

I have already said, he was President. In this meeting of the deaf at Geneva, the surprising fact came out that Mr. Salzgeber and Mr. Ricca both had hearing wives, with whom, by mutual preference, they conversed almost wholly by signs, although the men had both been educated in pure oral schools, and were better speakers than the average. The wife of one of them told me that while her husband made considerable use of speech in his business and for limited conversation, that for a really enjoyable talk they had to fall back on signs.

Those who are at all familiar with associations of deaf-mutes in Europe will not be surprised to learn that Paris carries off the palm among all cities for the number of its organizations. First, there is *l'Association Amicale des Sourds-Muets de France*, of which Mr. Henri Genis is President, who will be remembered by many in America as a delegate to the Chicago Congress. Then there are *l'Appui Fraternel des Sourds-Muets de France*, presided over by Mr. Pioche, and *l'Union Française des Sourds-Muets*, of which Mr. J. Berthel is President. Larger than either of these, I judge, is the *Alliance Silencieuse, Ancienne Ligue pour l'Union Amicale des Sourds-Muets*, of which Mr. Eugène Graff is President. And then, as well as I can understand, these associations are more or less connected with a *Conseil Supérieur des Sociétés Françaises de Sourds-Muets*, of which Mr. Cochefer is the chief officer. Then comes the *Journal des Sourds-Muets*, not a society, but a source of decided influence, edited and published by Mr. Henri Gaillard, who was with Mr. Genis and others at the Chicago Congress. All these associations, and Mr. Gaillard, both as editor and in his personal capacity, showed me great courtesy during my stay in Paris, all of which I sincerely appreciate.

The *Association Amicale* arranged for a conference on a Sunday afternoon, at the Mayoralty of the VI Arrondissement of the City of Paris, at which a large num-

ber of deaf-mutes were present, as also the Abbe Goislet, the chaplain of the Paris Institution for Deaf-Mutes, with Professors Boyer and Bertoux. Speeches were made by President Genis, Mr. Gaillard, Honorary Professor Dusuzean and others, and interested attention was given to an address of some length from myself.

On the evening of the following day a banquet was given, under the auspices of *l'Association Amicale*, at which officers and members of different societies were present, and a message of greeting was sent in from *l'Union Française*. At this festivity I was informed that I had been elected an honorary member of the *Association Amicale*, and received the badge of membership, an artistic medallion likeness of the Abbe de l'Épée, in silver.

I was invited by *l'Alliance Silencieuse* to take the place of Honorary President at their Annual Banquet, July 25th, which is held in honor of the birth of the Abbe de l'Épée and the decrees of 1791 and 1793, but was not able to attend this function as my engagements in England compelled me to leave Paris before the date fixed for the banquet. Later, I received notice, in England, from the President of the *Alliance* that I had been elected to the office of Honorary President of the Society, and later still I received at the Banquet of the London Congress, of which more anon, from the hands of Mr. René Hirsch, a French delegate to the Congress, a very beautiful memorial medal from the *Conseil Supérieur*, with the inscription, "A. E. M. Gallaudet, Bienfaiteur des Sourds-Muets, 25 Juillet, 1897."

In speaking of the courtesies of the Parisian deaf-mutes I must not omit mention of the hospitality of the venerable Mr. Griolet, who was in America in 1895-'6. He was most attentive, giving a dinner in my honor, at which I had the pleasure of meeting Professor Bélanger, of the Paris Institution, Mr. Urbain Borie, the deaf-mute poet,

and others. After the dinner the party adjourned to Mr. Griolet's apartments, where he showed his guests many interesting collections, among which was a series of unique photographs, taken by a deaf-mute, one every thirty minutes, of the Place Vendome, on the memorable day when the Commune tore down the beautiful column erected there in honor of Napoleon I.

On the day of my departure from Paris I received two gifts of unusual artistic merit, the artists bringing them to my lodgings in person. One was a life-like bust of the Abbe de l'Épée, by the deaf sculptor Gustave Hennequin, and the other a half-size medallion of the good Abbe, by Fernand Hamar, another deaf sculptor.

The Conference of British Instructors of the Deaf, held at Glasgow, July 28-30, was an important and interesting meeting. I had the pleasure of being present during the sessions of the 29th, and should have attended those of the day before had I not been detained in London to meet the Right Honorable Joseph Chamberlain, M. P. and Secretary of State for the Colonies, with whom pleasant recollections were revived of his visit to the College at Washington some years since, and of the very accurate account he gave of this visit to the Royal Commission when called before it in 1887. In this interview I had the opportunity of enlisting Mr. Chamberlain's interest in behalf of the project for a College for the Deaf in the United Kingdom.

The most enjoyable feature of my visit to Glasgow was a dinner given by Mr. Addison, Headmaster of the Glasgow Institution for the Deaf, to the headmasters present, with a few veteran teachers and officers of schools. With several American guests present this was truly an international affair, the leading toasts being to Queen Victoria and President McKinley. In the feast of reason and flow of soul, which was ample and inspiring, Britons and Yankees seemed as countrymen of one another. The speaking

wound up with an invitation to the British guests, provisionally accepted by a number, to attend our Convention of American Instructors in 1898.

Going to, about, and from Belfast, I rejoiced in putting all responsibility for myself on the broad shoulders of our former student and valued friend Francis Maginn, "the irrepressible Irishman," as I think he rather likes to have me call him. Being very kindly entertained by Mr. A. D. Lemon, Honorary Secretary of the Belfast Institution for Deaf-Mutes, I received my orders from time to time from my old student, and so came into very pleasant relations with many of the deaf of Belfast and vicinity. First, there was an excursion to a pretty seaside resort, Newcastle, in which some seventy-five of the deaf joined; then an interview with a reporter of the leading newspaper of Belfast; then an address to the deaf in their Mission Hall; then a service in St. Paul's Church by my brother, part of which I interpreted; then a pleasant visit and dinner with my old normal student, Mr. Tillinghast, and his wife, at the institution, which, as Mr. Lemon informed me, is highly prosperous under progressive American management; and so, with Mr. Maginn still in command, making everything easy and pleasant, off for London, August 2d, on the great "Bank holiday" of the kingdom, by fast train and steamer.

My brother, Mr. Tillinghast, Mr. Maginn, and I found great comfort from Carlisle to London in an American vestibuled train, with an American restaurant car, in which plenty of ice-water was to be had, with ice-cream for dinner, for all which unexpected, though I hope not undeserved, mercies we were all duly thankful.

The London Congress of the Deaf was a great success, with a programme all too extended to be fully given here. But a few features may be properly mentioned.

The opening service in St. Paul's Cathedral, conducted by Canon Owen of Birmingham, who is greatly interested in mission work for the deaf, the Rev. Mr. Sleight, son of

the venerable Headmaster of the Brighton School for the Deaf, and President of the British Deaf and Dumb Association, and my brother Thomas, was very imposing and solemn. Mr. Tillinghast's paper on "Deaf Teachers of the Deaf" was finished and forcible. Mr. Cuttell's paper on "The Higher Education of the Deaf" was a brilliant and unanswerable plea in behalf of the college—that is to be—in England. As a literary effort this paper is deserving of the highest praise.

The high-water mark of the Congress was reached at the banquet held at the Holborn restaurant, when delegates from France, Sweden, Norway, and the United States joined with their hospitable hosts in speaking for the general uplifting of their class in all nations. Sir Arthur Fairbairn, a deaf-mute nobleman, presided, and made an excellent address. The toast-master was the Rev. W. Blomfield Sleight, already referred to, whose untiring labors in aid of the deaf of Great Britain and Ireland deserve recognition in other countries than his own.

At the banquet I was invited to give some account of my recent experiences with the deaf of the Continent of Europe, and what I had to say was very kindly received by all present. Interpretations of my speech were made by Mr. Tillinghast in American signs, and in English signs by Mr. Edward Townsend, Headmaster of the Birmingham School, and the Rev. F. W. G. Gilby, Rector of St. Saviour's Church for the Deaf, London. Mr. Gilby was untiring at all points in his service for the Congress, and I am sure his labors as interpreter and otherwise were highly appreciated.

With my attendance upon the banquet of the London Congress my mission to the deaf and their friends in Europe, between May and August, 1897, terminated. But I must make mention of a few matters which did not seem to come into place in the narrative of meetings with the deaf.

The day before I left London I was very courteously received at the House of Commons by the Hon. William Woodall, M. P., a member of the Royal Commission on the Education of the Deaf and Dumb, etc., and was able to interest him in the scheme for a college in England for the deaf.

Through the courtesy of our American Ambassador at London, Col. John Hay, an interview was arranged for me with Sir John Gorst, M. P. and Member of the Privy Council, Vice-President of the Committee on Education. I presented to him copies of the "Message of the Officers and Directors of the Columbia Institution to All Interested in the Education of the Deaf in Europe," and of our College Catalogue. I spoke at some length of the project for a college for the deaf in England, and believe I sowed some good seed for the cause.

Through the courtesy of our acting *Chargé d'Affaires* at Rome, Consul General Wallace S. Jones, I had a pleasant interview with the Minister of Public Instruction for Italy, the Honorable Professor Emanuele Gianturco, presenting to him copies of our "Message" and College Catalogue for distribution in Italy. Mr. Jones was kind enough to have our "Message" translated into Italian by one of the assistants of the Embassy, and to arrange for the printing of the translation.

Our distinguished Ambassador at Berlin, the Honorable Andrew D. White, presented me to the Minister of Public Instruction for Germany, the Honorable Doctor Bosse, who received with great interest and attention the documents I had to present and the statements I made concerning the education of the deaf in our country. Mr. John B. Jackson, Secretary of the American Embassy in Berlin, was most courteous and helpful to me in many ways.

At Paris, I was not successful in obtaining an interview with the Minister of Public Instruction, nor with Mr. Monod, the Bureau Officer of the Interior Department,

who has charge of matters concerning the deaf, for he was ill during my stay in Paris. All I was able to do was to place documents in the hands of his Secretary.

Through the courtesy of the representatives of our Government at Rome, Berlin, Paris, and London, copies of our "Message" and College Catalogue have been forwarded to the Governments of Austria, Russia, Greece, Turkey, Sweden and Norway, Denmark, Holland, Belgium, Spain, Portugal, and Switzerland.

And now a few words in closing this communication, which I fear is already too long drawn out.

My only comment on my interesting interviews with the educated adult deaf all over Europe, after an assurance of my grateful appreciation of their cordial hospitality, is the expression of a gratified surprise at finding them urging with unanimity and enthusiasm the general adoption of a Combined System of education for their class. Their attitude in this matter is unmistakable, and who will venture to say it is not entitled to the fullest respect? Those whose names I have given are the most intelligent and best educated deaf men to be found in Europe to-day. Who can set aside the friendly criticisms of these men and the societies they represent of the method under which they have been trained? They do not suggest the abolition of speech-teaching, nor its relegation to an inferior position in the general scheme of education. But they do declare that the practical value of speech to the deaf in active life is greatly overestimated by many teachers; that many deaf children are incapable of success in speech; that the intellectual development of all the deaf is quickened by a judicious use of the sign-language, all of which considerations lead them to demand that a broader and more elastic system shall be adopted than can be found in any single method. I am confident the aspirations of these men and women who have discovered the insufficiency of the single method

in their own disappointing experiences will command a wide-spread and hearty, if not universal, sympathy on our side of the ocean.

Very truly yours,

EDWARD M. GALLAUDET.

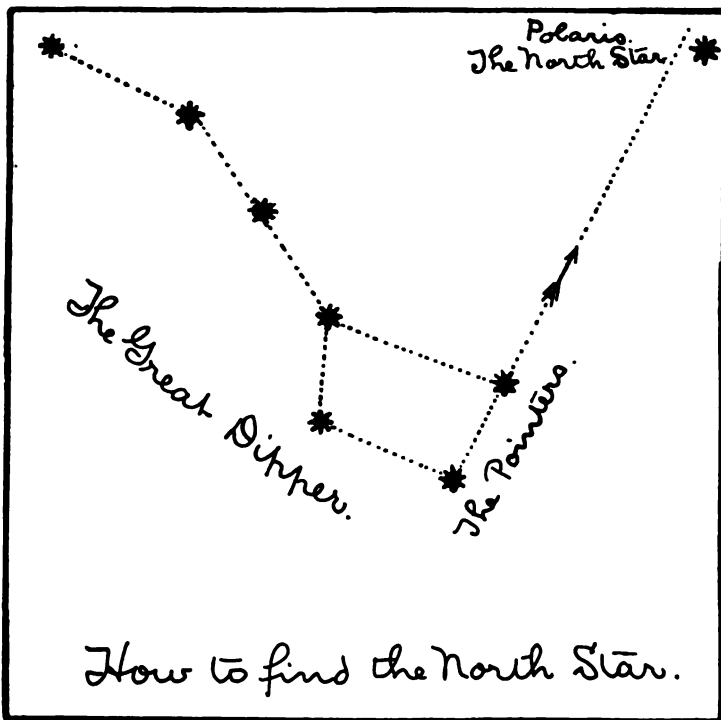
GEOGRAPHY TEACHING.

WE have before us a class of boys and girls who have just returned from a three months' vacation. They are full of their summer's experiences. John can tell us about the fish he caught in the large brook which runs by his father's farm. He can tell us about his brother who herds a large flock of sheep in the hills not far away. Ruth can tell us about the large lake she has seen so many times, and of the winding river which flows into it. Joe can talk about his father's store in the city. He can tell us about the street-cars, and how a car came very near running over him one day. He can talk about the many big stores and the many people. Arthur will say that he had a long journey to school; that there is no railroad near his home, and that his father drove with him to the railroad; that they camped out in the mountains and saw a deer. Pearl will inform us that her father and brothers work in the mines; that they dig ore out of the ground; that the ore has in it gold and silver. She may have a specimen to show us. Peter will tell us many interesting things about his long journey from Holland to Utah; about the ocean, the steamer, the big waves, the fishes, and other things which he saw.

Each pupil is a teacher. He leads his class-mates miles away from school to tell them about his part of the world. When these home stories have been told, and when questions have been asked and answered regarding them, the pupils begin to realize that the world is really very large,

and that there are many people, many rivers, many cities, mountains, horses, cows, and various other things that they would like to see or know about. They are already interested.

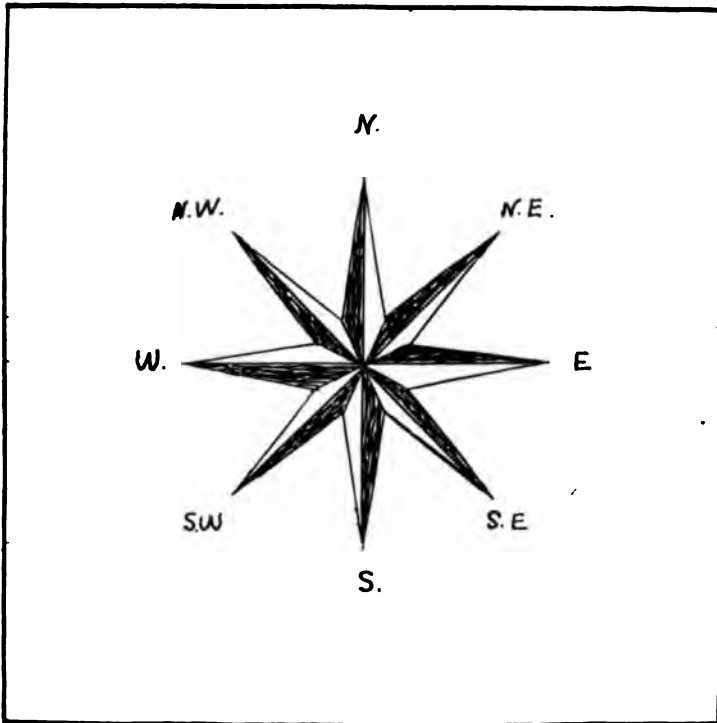
Take them out on a clear night. Tell them about the moon. Have with you a large field-glass or, if possible, go where you may look at the moon through a telescope. Show them a double star. Point out the Great Dipper and the North Star. Next day draw on the black-board the following diagram :



Pupils should be provided with note-books, and from now on every lesson, all drawings, all questions and answers, weather bulletin, etc., should be carefully kept.

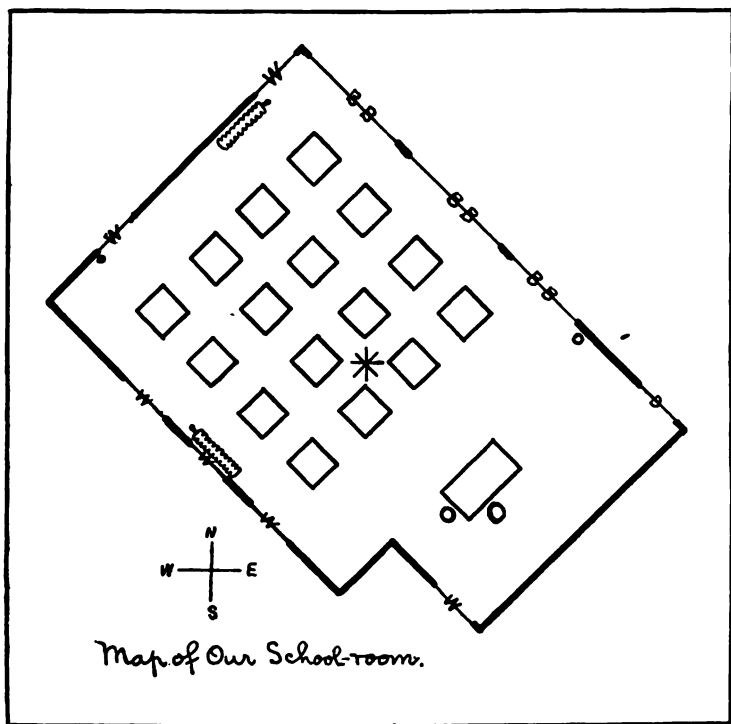
Show them your record book and let them know that you are doing the same work.

Paint upon the floor, in the centre of the room, a compass, thus:*



Show them a real compass. Place it upon the painted one. It will be interesting to show your horseshoe magnet, and tell the children a little about the magnetic pole.

* Go into the carpenter shop, get a paint brush and a spoonful of white lead. Mix a little linseed-oil and a few drops of turpentine with the white lead in the cover of a can, or anything you find handy. To shade the compass, use a pen and ink after the compass has been painted. Let the pupils help in this.



A map is a drawing on paper, on the black-board, or something else. A map is a drawing of a room, a house, a city, or a part of the earth.

On a map the top (up) is north.

On a map the bottom (down) is south.

On a map the right side is east.

On a map the left side is west.

It is well to have a few action lessons :

Ruth, stand at the right end of my desk.

Pearl, stand just a little north of Ruth.

Roy, stand in front of Ruth.

Peter, put a book on the desk just northeast of Joe's.

Drill on such phrases as—in front of, behind, between, near, in the centre of, in the north corner, up, down, to the right :

- Who sits in front of Joe ?
- Who sits behind Pearl ?
- Whose desk is just northeast of Ben's ?
- Whose room is above ours ?
- Whose room is below ours ?
- How many desks are there behind Helmer's ?
- Where is the compass ?
- How many points has it ?
- What are their names ?
- What is the earth like ?
- Name four kinds of people.
- What do you see on the earth ?
- Which way on a map is north ?

These are simply suggestive questions.

Now study your school building. Go out with the class and measure the building. With the pupils' help draw it on the black-board. Prepare a wall map.

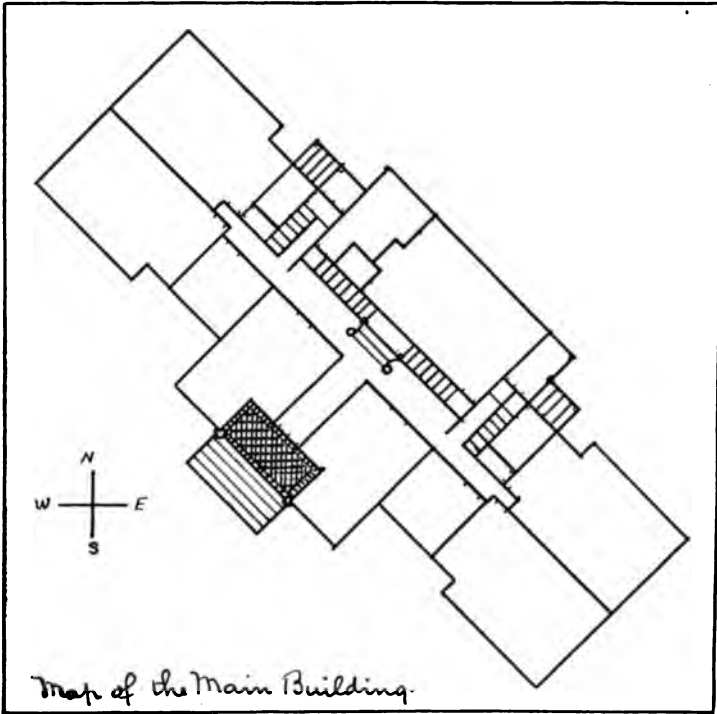
Study this map as you did the school-room. Teach the names of all rooms, but do not write the names on the map. Vary your class recitations.

a. Pass slips of paper to the pupils ; point to rooms, corners, ends, halls, etc., having the names written on the slips.

b. Give pupils the names of half a dozen rooms ; go with them and peep into each room ; tell them to take note of what they see ; returning, have them write out in good form what they saw.

c. Roy, take the pointer and show us what Ruth spells. Ruth must know the names of the rooms, etc., or she will fail and some one else will take her place.

d. Peter, you may act as teacher. Point to different parts of the building and ask some one to spell the names.



e. Ask questions such as—

Which room is northeast of ours ?

Which room is between Supt. Metcalf's office and our school-room ?

What two rooms are in the southeast end of the building ?

In which end of the building are we ?

In which side of the building are the blind pupils ?

On which side of the building are the front steps ?

f. Show me where Mr. Metcalf's desk is.

Show me where I am standing.

Pearl, put a book in this place. (Teacher pointing out some place in the room on the map.)

In such exercises as *c* and *d* the teacher places the responsibility upon the pupil who acts as teacher. Here you have an opportunity to use the backward pupils and to "spur" them up. You also have two pupils thinking instead of one pupil and yourself. Your pupils are teaching each other.

In exercise *f* the pupils compare lines or positions on the map with the real object or place.

Now take a walk about the school grounds with pupils and observe everything. Returning, roughly sketch an outline of the grounds. Have pupils do the same on their tablets. Divide the class into squads of three. Provide each squad with a measuring line and a tablet with the drawing, and send them out to measure carefully certain fences or lines. Go yourself with the most backward pupils. Now prepare your map. You will have a new list of names such as :

The main building,	The vineyard,
The industrial building,	The garden,
The apple orchard,	The farm,
The alfalfa field,	The pasture,
Monroe avenue,	The west gate,
The boys' playground,	Base-ball field.

Work on this map would be very similar to the suggestive exercises above, and would give questions such as :

The front gate is what direction from this building?

The barn is what direction from this building?

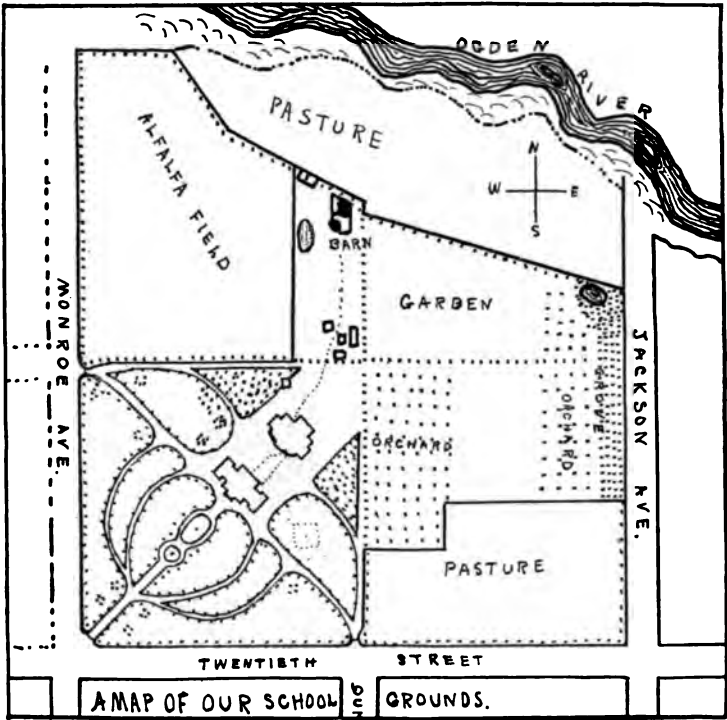
The apple orchard is what direction from this river?

What street is just south of our grounds?

Show me the fence on the north side of the pasture.

Show me the fence between Jackson avenue and the grove.

You may enlarge upon the work by taking up different kinds of soil, and the kinds of trees and animals about the institution.

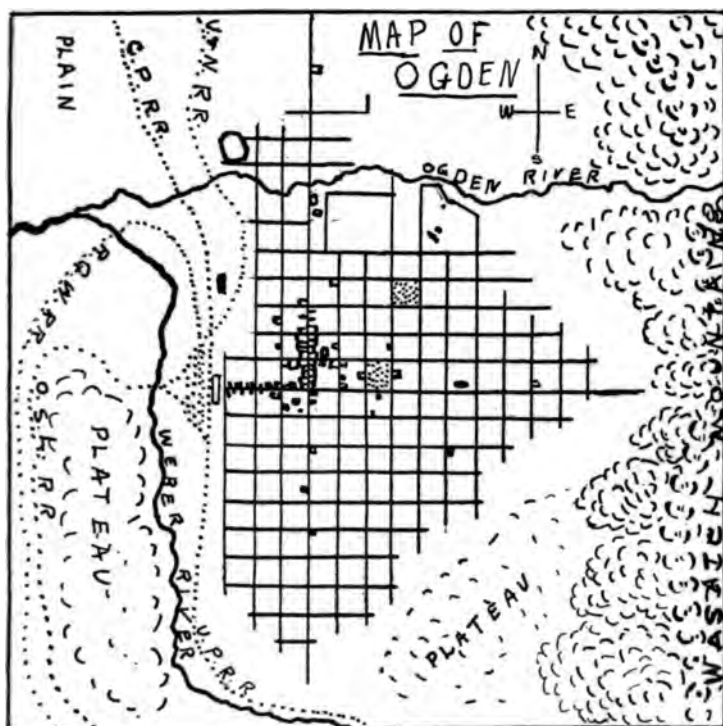


When this map has been well learned, and the names are thoroughly fixed in the minds of the children, draw a large map of the city. Measure one or two blocks and streets before preparing your map. You might with much profit measure a mile.*

This map is the most interesting one of all so far. The railroads and street-car lines might be red dotted lines, thus giving distinction from rivers.

On Friday write out a list of the six principal places in the city, as :

*Start half of the class in one direction and half in the opposite direction. Let each measure one-half mile. When the half-miles are measured the pupils are just a mile apart.



The Post Office,
The City Hall,
The Fire Department,

The First National Bank,
The Telegraph Office,
The Reed Hotel.

Have each pupil copy this list on a small piece of cardboard or in a small memorandum book and require that when they go to the city Saturday afternoon they find these places. Tell them to ask a policeman where the City Hall is if they cannot find it themselves. Tell them also to be able to tell you something about each place they find. This exercise will delight the boys and girls and it will be very fruitful.

Locate these places on your map ; also all other places of interest, as the churches, the schools, the union depot.

A great deal of work can be done with questions, but the most productive exercise is the one where pupils act as teacher in turn. I frequently found my pupils, after school hours, showing the pupils of advanced grades about Ogden and explaining the places located on the map.

It is well to take a long walk about town with the class and have them act as guides and tell you what street you are on, what places you pass, who lives here, etc.

A Few Suggestive Questions.

Where is the Post Office?

On what street is the Sacred Heart Academy?

How many blocks is it from here to the Opera House?

On which side of Adams avenue is Miss Eddy's home?

Between what streets is the telegraph office?

Near what bridge is the flour mill?

Who lives opposite Lester Park on 25th street?

What place is on 24th street between Quincy and Jackson avenues?

What place is on the corner of Lincoln avenue and 23d street?

What avenue is one block east of Madison avenue?

On what street is the Ogden State Bank?

Where is my home?

What store is on the northwest corner of Washington avenue and 24th street?

You might have a visitor some day who lives in your city. Tell the class that Mr. B. lives on the west side of Jefferson avenue near 22d street. Have them locate his home. This is real live work, and much benefit is derived from it.

You will find it profitable to discuss the occupations of the people of the city. A few good lessons on this topic should be given.

If there is a hill near by, go with the class to the top of

it and view the surrounding country. Get out on top of the school building and look about. Now prepare a map of the county.



In drawing the map of the county the boundary lines may be red ; the railroads might also be red and dotted, and the wagon roads black and dotted. One inch to the mile is a good scale for a wall map of the county.

In this map we have a city, towns, valleys, mountains, rivers, branches, brooks, a river basin, a river system, slopes, hills, plains, plateaus, bays, straits, railroads, and other important things to study.

Very soon after taking up Weber County we had a distinguished visitor from Idaho, our neighboring State on the north. When we had explained who Mr. A. was, where he lived, and how he came to Ogden, we had a lesson like the following, and it was remarkable how well the pupils answered the questions :

What direction is Idaho from here ?

Point toward Idaho.

Show me the railroad which goes to Idaho.

Write the name of this railroad.

In what direction did Mr. A. travel to come to Ogden ?

In what direction will Mr. A. travel to return to Idaho ?

If he goes to Salt Lake City, in what direction will he travel ?

Show me the railroads which go to Salt Lake.

Mr. A. leaves to-night for Colorado over the Union Pacific Railroad. Show me what route he will take.

A Few Suggestive Questions.

What map are you studying ?

What do you find in Weber County ?

What counties are north of Weber County ?

What bay is northwest of Weber County ?

What river flows into the Bear River Bay ?

What is at the mouth of this river ? *Ans.* A delta.

Do you think it is muddy there ?

Do you think the soil is very fine there ?

- In what county is Ogden City ?
Where is Cache County ?
What river is in Weber County ?
How many blocks is the river from here ?
In what direction does the water flow ?
Is the water in the river clear or muddy ?
How many railroads are there in Weber County ?
What railroad goes to the West ?
On what railroad can you go East ?
On what railroad do you go home ?
What five counties are around Weber County ?
What town in Weber County is farthest east ?
What town in Weber County is nearest Great Salt Lake ?
What direction is Ogden Cañon from here ?
How many miles is it from Ogden to Huntsville ? *

The next map is one of the State. It is an easy matter to secure a large map of your own State. Before taking up this map write out a list of questions, similar to these given below, to be answered in story form. You may, to make the lesson more fruitful and interesting and to give it variety, give each pupil or parts of the class different sets of questions. That is, give the pupils living in cities one set, those living in towns another set, and those living on farms or in the country still another set.

Questions.

- In what county do you live ?
In what city or town do you live ?
How far is your home from here ?
In what direction is it from here ?
How did you come to school, by train or by wagon ?
On what railroad ?
Does the railroad go through your town ?

* Pupils know the scale and can soon tell you the number of miles.

Is your home in the town or on a farm near by ?

Is your house large or small ?

Is it built of stone, brick or wood ?

Is there a river or a brook near your home ?

What is its name ?

Is it large or small ?

In what direction does it flow ?

Do you go fishing in it sometimes ?

Are there any hills or mountains near your home ?

Are they high ? Are they rocky ? Are there any trees or bushes growing on them ?

Is there a lake near by ?

Do the men in your town work on farms ?

Do you like to live on a farm ?

Have these stories written upon the black-board one by one and told by the pupils. Have the pupils ask questions about one another's homes, towns, and counties. These home stories will be interesting to the boys and girls.

To lead pupils to see that Weber County is but a small portion of Utah, and that it is *in* Utah, I pinned upon the large map of the State a sheet of paper having cut in it a square hole just large enough to show the same area as is represented on my wall map of Weber County. The pupils grasped the idea immediately, and, when the sheet of paper was removed, had no difficulty in locating the county and those bordering on it.

You have now led your class from the school-room to the State. You have at the outset made them realize the extent of country by their own talks about home. You have shown them worlds other than their own. You have taught them to be inquisitive and to be observing. You have created an earnest desire to study from nature and to investigate. They realize distance, because they have measured inches, feet, yards, rods, and miles. They know

what maps are and why marks and lines are placed upon them, because they have made and helped to make maps.

In the study of the State lead the pupils to understand that as Weber County is only a small part of Utah, Utah is a smaller part of the great United States.

It is well to spend considerable time upon the State. Every pupil should know a great deal about his own State. Pupils should know about *home* and then go visiting. They will then know what to look for in other States and other countries. Teach the important things. Have as many different maps of your State as you can get.

One to show the mountains, valleys, and rivers.

One to show the cities, towns, and counties.

One to show the products.

By this time spring has come. Children enjoy being out of doors. It is a pleasure to them to take walks with their teacher. You should go out at least once a week on one of these field trips. Make out a list of words, names of objects in the vicinity of your school, such as a mountain, a hill, a river, a brook, some sand, some loam, some rapids, a rill, a shore, an island. Have pupils copy this list, and when out on the little excursion have them point out the objects named and take a note of each object. On returning to the school have pupils write something about each thing they have seen.

My boys and girls in speaking of a brook we saw and talked about on our second field trip this spring wrote as follows :

Roy. "It is small."

Pearl. "We jumped over the brook."

Peter. "A brook of the water flowed."

Ole. "We saw a brook which sink into the gravel."

Joe. "I saw some brooks in a valley."

John. "A brook sinks in the sand and the water run out of a source."

Ruth. "The brook was small."

Elgin. "The brook sinks into the gravel."

Arthur. "We saw a waterfall in the brook."

Elmo. "The brook flow in a small valley on the bottom."

Matilda. "The springs run into the brook."

Helmer. "Mr. Driggs told us to see a brook which sinks."

Willie. "The water carried some sand in the brook."

The sentences above are just as written by the pupils, without any corrections, and show the results obtained in this line of work. The children are searching constantly for new things and keep the teacher busy answering questions and telling the names of numerous objects they find.*

There are other ways to make these little outings profitable. They give new ideas for language and journal writing, afford opportunities for questions, and often an incident happens which forms a nucleus for other work. Besides, when your pupils study from nature they do not have mere shell definitions of words. They have the real substance—the kernel, if you will.

Take the class to the garden and the orchard, and see if the soil is fertile, if it is moist, if it is hard and baked, if it is rocky. Go wherever you may find an opportunity for investigation.

The work outlined in this paper is based upon the *actual* work done in my class of fifth-year pupils during the school year 1896-'97. It is hoped that in the publication of the article the ideas and suggestions expressed may, directly or indirectly, aid others who are teaching geography.

FRANK M. DRIGGS,

Instructor in the Utah School, Ogden, Utah.

* Just before recess one day I told the class about a peculiar bush in the front yard, some distance from the school building, and *immediately* after the lines had passed out several of my pupils were seen about this ~~examining~~ **examining** it.

THE FOURTH YEAR'S WORK.—II.*

II. NUMBER.

THE principal number-work of this year will be the very thorough teaching of "carrying" in multiplication and division. You will also, of course, have a thorough review of all that your class ought to know, and a gradual advance in mental arithmetic, till they are able to solve problems containing three or four steps. If you find that they cannot solve a problem mentally, give it in writing. If they cannot solve it then, from the written question, let them do the work on their slates. Have these solutions erased, and the same question solved mentally from the written question. After they have acquired the power to solve any proper problem mentally from the written question, erase this, and ask them the same question by spelling. This will be much harder for them, but it is a training of attention and memory that they need. At first you may spell slowly, and repeat often, but gradually increase your speed, and lessen the number of repetitions.

For your next step, give them a problem to solve from the written question, and a very similar one, but not the same, immediately after by spelling. With most classes these exercises will be very hard work at first, and should not be continued too long at a time. Considerable drill will be necessary on each step before going to the next. Deaf children ought to learn to solve questions by mental arithmetic as readily as other children do. The reason why they do not is that they are not taught how to solve them, and are not gradually accustomed to the self-reliance needed. They are too much accustomed to looking around and seeing if others are solving a problem in

* Continued from the June number of the *Annals*, page 237.

the same way, even when they do not copy the work of others.

Have them spell out their mental solutions, and let the others follow. Devote some time every week to this work.

To be sure that your pupils perfectly understand "carrying" in multiplication and division, you will have to work out a number of examples in each by means of toothpicks, as you did in addition and subtraction.

Take the example: "Five times 39 are how many?" Have some of your pupils make five piles of three bundles and nine loose picks each, and tell them that you wish to know how many picks there are in all five piles. Very probably some of them will begin to solve the problem by addition. If they do, let them work it out, and then tell them that there is a shorter way to do all such examples. Write the example:

$$39$$

$$5$$

Ask how many five times nine are. They ought to know, but, if they do not, let them hunt it up on the multiplication-table you made for them some time ago. Write the 45 off at one side, anywhere. Ask what the 4 stands for, and, after you get the answer "four tens" or "four bundles," ask what the 5 stands for. Have one of your pupils gather up the nine loose picks from each of the five piles and make them into bundles of ten each. Show all the pupils that there are four of these bundles, and five loose picks left. Tell them that you will write the 5 from the 45 under the figure 5 in the example, and take the five loose picks from the pupil who has them and put them somewhere by themselves. Cross out the 5 from the 45. Tell them that you will let the pupil who gathered the picks keep the four bundles because he is

going to have some more of the same sort soon, and that you will leave the 4 for the present where you wrote the 45, but that you have crossed out the 5 because you have written it in another place.

Ask how many bundles five times three bundles are, and have some one verify the result by gathering up the five piles of three bundles each; and as they are just the same as the four bundles which the first pupil has, give them to him. Write 15 under the 4 left where you wrote 45. Ask the pupil who has the bundles to count them. Ask another pupil to add the 4 and 15, and see if they agree. Ask the first pupil to make out of his nineteen bundles as many large bundles as he can of ten small bundles each. Ask him how many small bundles he has left, and then ask the class how you shall show this. Write the 9 in its place, and take the nine small bundles away from the pupil who has them, and put them with the five loose picks. Ask how you shall show the one large bundle which the pupil has left. Write the 1, and take the large bundle away from the pupil, and put it with the others. Compare your pile of picks with the 195, the result of your work with the figures.

After this, take an example and work it out with figures only. Then verify it by working it out with toothpicks. Again, let some of the pupils secretly do the work with the toothpicks, and others the figure-work, and compare results.

You can, of course, explain the multiplication of any number by another consisting of two or more figures, and work out the partial products in the same way; but unless you intend to spend in drill upon it much more time than you are at all justified in doing, my experience is that the pupils will forget all about it. I should tell them that the second figure in the multiplier means tens, and so we always put the figures that come from multiplying by it one place to the right, or the first one directly under the

figure we are multiplying by. Give a similar short explanation for the other figures. After this, just let them "follow the rule," and write the first figure of each partial product under the figure in the multiplier from which it comes.

In teaching division, I am very firm in the opinion that it is a mistake, or at least a great and useless waste of time, to teach the method of long division first; and also that no good ever came from allowing a child to use that method when the divisor is expressed by a single figure. You, yourself, may, if you think it wise, use that method with a small divisor in explaining the method of *long division*.

I should reverse the usual custom, and, instead of at first allowing children to use the long-division method for short-division examples, I should make them solve their first examples in long division by the short-division method, or a slight modification of it.

We will suppose you are giving your first lesson in the division of numbers where the quotient will have more than one figure. Have a number of toothpicks equal to the dividend made into bundles of tens and hundreds. Let it be required to divide 798 by 5. Tell your pupils that you are going to divide that number of toothpicks—seven big bundles represented by the figure 7, nine small bundles represented by the figure 9, and eight single toothpicks represented by the figure 8—into five equal piles. Put the toothpicks in plain sight of all the class, and mark, or provide in any way, five separate places. What you wish to know is how many will be in each place after the division is ended.

Write the figures on your wall-slate, somewhat farther apart than you usually do, and place the 5 at the right, with the usual sign of division :

$$\begin{array}{r} 5 \overline{) 7298 - 3} \\ \underline{1 5 } \end{array}$$

Ask how many fives in 7. If they cannot tell you, let them look at the table, or tell them to subtract 5 from 7 as many times as they can. Put down the 1 under the 7. Ask how many of the 7 are left. Write the 2 and draw the line connecting it with the 9, as shown in the example.

Tell one of your pupils to take the seven large bundles of picks, and to put them, one at a time, into the five places that you have provided for them; being sure not to put more in one place than in another. Call attention to the facts that he has put one into each place, the same number that you have written under the 7; and that he has two left, the same number you have written near the 9. Give him the nine small bundles, and tell him to unfasten the two large bundles. Ask him, after he has done this, how many small bundles he has, and show that it is just the same as you have over your diagonal line—29.

Ask, again: "How many fives in twenty-nine?" "How many times does five go into twenty-nine?" or "How many is twenty-nine divided by five?" If they do not know, tell them to subtract 5 from 29, and 5 from that remainder, till they get a remainder smaller than 5, and to count the times. Write the 5 and the 4 as shown in the example.

Tell your pupil to divide the twenty-nine small bundles which he has; and compare his results with yours, as carefully as you did before, showing what each figure in your operation means.

Divide the 48 in the same way, and compare your figures with the pupil's toothpicks. Tell them then that there are 159 toothpicks in each pile, and three left over. Compare results, and make your pupils compare them

and see for themselves that the method with figures and the counting with toothpicks have produced the same results.

Solve the next example entirely on the slate, and afterwards prove it by counting out the toothpicks.

After carefully explaining in this way, you must have them practise by doing a great many examples. At first allow them to consult the table on the wall freely, but tell them all the time that they ought to remember it. Once in a while cover it up, and have them reproduce it from memory. In this way you will soon have them able to do any example in short division without a glance at the table.

Occasionally you may have division proved by multiplication, verifying results with toothpicks whenever you think it will give your pupils a clearer idea.

To teach long division, we will suppose that you are to divide 297,645 by 18. Write the example exactly as you would for short division, only putting the figures farther apart.

$$\begin{array}{r} 18 \overline{) 297645} - 15 \\ \underline{18} \\ 11 \\ \underline{18} \\ 36 \\ \underline{36} \\ 0 \\ \underline{0} \\ 45 \\ \underline{36} \\ 9 \end{array}$$

Tell them to take the first two figures, 29, and write them at one side. Ask how many eighteens there are in 29. You may have some wild guessing. Suppose one says "two." Tell him to multiply 18 by 2, and compare the result, 36, with 29. "Can you take 36 away from 29?" Then there are not two eighteens in 29. If there were, you could take two times 18 from 29.

Some one then says that there is only one eighteen in 29. Tell him to multiply 18 by 1, and to see if he can subtract the product from 29. He can subtract, and does so, getting 11 for a remainder. Comparing this remainder

with 18, he sees that it is smaller, and you tell him to set down the 1 and the 11, as shown in the example, drawing the line to combine the 11 and the 7 as shown.

Now have them write this 117 at one side and divide it by 18. They cannot do this. Possibly they have no idea even how to begin. Tell them to subtract 18 from 117, and then 18 from the remainder, and so on till they find a remainder too small to take 18 from. Have the operation performed like this :

$$\begin{array}{r}
 117 \\
 18 = 1 \text{ time.} \\
 \hline
 99 \\
 18 = 2 \text{ times.} \\
 \hline
 81 \\
 18 = 3 \text{ times.} \\
 \hline
 63 \\
 18 = 4 \text{ times.} \\
 \hline
 45 \\
 18 = 5 \text{ times.} \\
 \hline
 27 \\
 18 = 6 \text{ times.} \\
 \hline
 9.
 \end{array}$$

Or they may simply count how many times they have subtracted. "Six times." Then 6 is the right figure. Have them multiply 18 by 6 and subtract the result, 108, from 117 ; and notice that 18 cannot be subtracted from the remainder 9. So we write the 6 and 9 as shown in the example.

But some one may have suggested at first that 4 is the right number for the quotient. Tell him to multiply 18 by 4, and subtract the product from 117. Compare that remainder with 18, and if it is larger subtract 18 from it as before, thus :

$$\begin{array}{r}
 117 \\
 72 = 4 \text{ times.} \\
 \hline
 45 \\
 18 = 5 \text{ times.} \\
 \hline
 27 \\
 18 = 6 \text{ times.} \\
 \hline
 9.
 \end{array}$$

As he was able to subtract 18 from 45, there were still some eighteens left in 117, after taking out four eighteens, and he must go on with his subtractions from that point. Write results as shown.

If a number larger than 6 is suggested, multiply 18 by it, and show that you cannot subtract the product from 117, and so there cannot be so many eighteens in 117.

Go on with the other figures in the same way. Whenever a pupil thinks that any number is a proper one for the quotient, make him see if it is right, by multiplying and subtracting.

As a step in advance, call on all the pupils to do the work of finding a figure of the quotient, and the remainder, on their own slates, and you write them down, after they give them to you. The key to the whole process is the comparison of the remainders with the divisor, and being sure that they are always smaller than it is. This will insure correctness, if the pupil never subtracts the larger of two numbers from the smaller. Our pupils will hardly make this mistake. You have carefully taught them how to find out for themselves when they are wrong, and you will be astonished to see how soon they will be dividing accurately and rapidly even by this long process.

After they have worked in this way for a time, give them the regular long-division method, and they will quickly see that it is only a shorter way of doing what they already know how to do, and will readily adopt it,

though I have had a number of pupils who always preferred the first method when there were not more than two figures in the divisor.

I have now given rather more work in numbers than I should expect from a class in the time required by the language work given, but I have had more than one class who did this much in the first three years; and, as it is uncertain that an article on the fifth year's work will ever appear in the *Annals*, I wished to round out the subject by finishing long division.

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[TO BE CONTINUED.]

CO-OPERATION.

[The following article is based upon a discussion at the meeting of the Teachers' Association of the Minnesota School for the Deaf, in May last. At that meeting four papers were read:—1. The Value of Co-operation, 2. Co-operation in Language Work, 3. Co-operation in Arithmetic, 4. Co-operation in Discipline, Manners, and Morals.]

ONE morning, at breakfast, Farmer Cornstalk expressed a desire to have an old-fashioned hasty pudding for dinner, and he added, "Be sure you salt it well, mother." As the noon hour approached, the pudding was cooking on the stove in the Cornstalk kitchen, and the good wife, remembering her husband's injunction, had seasoned it properly. As chance would have it, an errand brought the worthy farmer into the kitchen soon after, when no one was there. Seeing the pudding on the stove, he determined to make certain of the salt part of it, so he stirred in a liberal handful and departed. By and by grandma came into the room, and, recalling her son's injunction and her daughter-in-law's forgetfulness, she too added a handful of salt to the compound. The eldest daughter of the house was the next comer, and, with a praiseworthy

desire to please pa and atone for ma's remissness, she further increased the seasoning of the pudding. Dinner-time arrived, and the family gathered around the board. Farmer Cornstalk helped himself generously to the pudding, took an equally liberal mouthful, choked, sputtered, and exclaimed, "Who salted this 'ere puddin'?" Then, remembering his own share in the transaction, he said he guessed one of the colts was loose in the barn, and went out hurriedly, leaving the rest of the family to discover that the proof of the pudding, and of the seasoning, lay in the eating.

There was no lack of zeal in the Cornstalk family. It was want of co-operation, rather than a multiplicity of cooks, that spoiled the broth. And the moral of this incident can be applied with profit to any work in which two or more persons are laboring to a common end.

A universally recognized principle of modern life is division of labor. We see its operation in constitutional governments, where the affairs of a nation are classified under the direction of different departments and bureaus. The same principle is followed in great business enterprises. But its most practical exemplification is found in manufacturing industries. Instead of one pair of hands making the whole of each article, as was the rule in the earlier days of industrial activity, the article now passes through several pairs of hands before it reaches its finished state. It has been proved that more and better work can be done by this modern method of division of labor than by the old individual system.

The chief—we may say the indispensable—essential to success wherever division of labor is the rule is co-operation. In government, if the various departments and bureaus do not work in harmony, do not co-operate as they should, the public interest suffers, cabinets are disrupted, and even revolution may result. A forcible illustration of the prime importance of co-operation is seen in

the workings of a great railway system. The thousands of officers and employees are under the direction of one central, controlling power, and the most thorough co-operation is required of them, for it is only thus that the great system can work smoothly, that trains may be run on schedule time, and that accidents may be avoided. For another illustration, let us take the construction of an intricate machine. There must be a general plan, with details of the various parts. These parts are made by different mechanics. If the general plan and details are carefully followed by all who have a share in the construction of the machine, then the parts, when fitted together, will run smoothly, and the machine is a success. Failure of one workman to do his part in accord with the general plan produces discord in the finished machine. The perfect discipline which enables small armies to carry the field against vastly larger but less orderly hosts is nothing more nor less than the co-operation of soldiers and officers under the plans and orders of the commanding general.

Nowhere is co-operation more important than in the education of the young, and especially in the education of the deaf. The principle of division of labor prevails in education as in other human interests. It is the rare exception for one teacher to have the entire training of one child throughout a period of years. The rule is that children shall pass from one teacher to another as they advance from grade to grade.

The object of education is the symmetrical development of the physical, mental, and moral natures of our youth, and, to attain this result, earnest, intelligent co-operation on the part of all who share the responsibility is imperative. If it were wise or expedient for each teacher to take a class of children and carry them through the whole school course without change, then would the question of co-operation become of minor importance,

while that of individual ability and fitness would reign supreme. Education is not, and should not be, a patch-work. But where half a dozen teachers have a share in the training of each child, there is reason to fear that the "pieces" will not fit or harmonize unless there is earnest and intelligent co-operation among those teachers from beginning to end.

The question here naturally suggests itself: Is there a sufficient degree of co-operation among the teachers in our schools for the deaf? I shall not presume to answer this question save by asking another. Does it not seem as if ten or twelve years of careful teaching, with all the teachers working along the same lines, toward the same end, ought to produce better average results than are the rule?

We cannot shut our eyes to the fact that the attainments of the graduates of our schools, especially in the use of English, are not what they should be, what we could wish. Are they all that they might be? Teachers of the deaf are, as a rule, capable, zealous, and faithful. Little fault can be found with their work, regarding them individually. It is their collective work, the finished product, that is not satisfactory. There is enough of teaching energy expended to accomplish better results. Is it sufficiently concentrated? No matter how faithfully and intelligently each teacher labors, unless his work is in accord with a general plan and contributes to a common end, there is a waste of energy. No teacher can take up the work where another left off, and carry it forward uninterruptedly, unless those two teachers have a clear understanding between them and are working in harmony. When the individuality of the teacher is given free play, he is apt to follow out his own theories, to try methods of his own. The succeeding teacher of the class acts likewise, and so on with every change. This transition from teacher, from method to method, must affect

the pupils more or less unfavorably. They have to unlearn or forget a great deal to make room for something different. They are pulled this way and then that, mentally, as it were, instead of being urged forward steadily on the road to knowledge. With an ever increasing degree of co-operation, with all the teachers earnestly seeking for the best methods and agreeing upon them, with frequent comparison of individual results for the common benefit, and with all the individual zeal and genius for teaching contributed to a common fund, better results might be obtained, and I believe they would be.

CO-OPERATION IN LANGUAGE WORK.

In no branch of our educational work among the deaf is co-operation of such supreme importance as in the teaching of the English language, and it is where we attain the least satisfactory results. Our pupils acquire themselves creditably in arithmetic, in history, in geography, and in the acquisition of general information, while their ability to use idiomatic English remains disappointing, if not discouraging, to the earnest teacher. What makes co-operation all the more essential in this respect is that during nearly the whole school course the teacher is practically the only text-book. The books ordinarily used in the public schools for giving instruction in language are mainly inapplicable to the deaf, and what few books have been written expressly for deaf children have either been found inadequate or have not gone far enough. If, then, the teachers are to furnish not only the language, but also the ways and means of imparting it, and if the pupils are to pass from one teacher to another, does it not stand to reason that the highest degree of co-operation, of adherence to certain general principles, is essential to success? With lack of some definite, uniform method of developing language, there is certain to be a vast waste

of energy. Every teacher knows how quickly pupils forget. Principles carefully taught one year will be forgotten next year, unless kept fresh in the mind by frequent use. There is no doubt that, as a rule, instructors teach well and carefully what they are expected to, but the great drawback is that they do not often enough teach the same thing, or teach it long enough to engraft it firmly on the mind.

Co-operation, most thorough and effective, is needed in the teaching of colloquial English, the English used every day in the industrial and social world. It is not such English as our pupils use when they manufacture stereotyped sentences to order, when they write items of news that too often have a wearisome sameness of form and substance, when they describe pictures or write compositions, but living English, working English,—the language of the kitchen, dining-room, bed-room, parlor, barn, garden, field, shop, store, street,—in a word, of every place where humanity lives, acts, and speaks daily.

This summer I was conversing with a deaf young man who graduated from school five or six years ago. He told me a laughable incident of a ridiculous position in which he was placed, soon after leaving school, on account of his ignorance of colloquial English. Then, suddenly becoming serious, he said, with great earnestness, that the teachers ought to give more care and attention to teaching conversational English, as it was the greatest need of the deaf after leaving school. As I had been that young man's teacher for a short time, it may be imagined that his words went home.

I do not propose co-operation as a cure-all for the weaknesses of language that afflict our deaf pupils. But I believe that a careful study of the characteristic faults in the use of language, a systematic plan for developing colloquial English, and the adherence to it by all the teachers, would produce a noticeable improvement. A graded

system of common, practical actions, of questions and answers, of conversational exercises, revised and enlarged from time to time as experience and comparison recommended, would mean much. Add to these the united determination of all the officers and teachers of the school to use colloquial English in their communications with the pupils, wherever possible, and to require the pupils to respond in kind; for, after all, the learning of a language is more a matter of necessary use than anything else.

CO-OPERATION IN ARITHMETIC WORK.

In the *Annals* for June, I discussed "Characteristic Errors of Pupils." It is in overcoming such errors as I called attention to in that article that co-operation in arithmetic will be found most valuable. There is but one point that I wish to emphasize here: the importance of rapidity and accuracy in mental operations, with small numbers, both integral and fractional. This can be acquired only by concert of action on the part of all the teachers. Our pupils are not likely, in after life, to be required to figure out problems involving hundreds of thousands and millions, nor such fractions as thirty-ninths or sixty-sevenths. What work they may be called upon to do will be confined to tens and hundreds, to halves, thirds, fourths, eighths. If, therefore, we co-operate to give them rapidity and accuracy in such work, we are best fulfilling our duty to them.

Another important consideration in arithmetic work is to make it practical. This summer, a deaf boy who had been ten years at school applied for work at a large factory in Minneapolis. His appearance was in his favor, and the foreman was well disposed. The factory was just then in need of a paper-cutter, and the foreman asked the boy if he had studied arithmetic. He replied that he had, as far as percentage. The foreman then gave him the

dimensions of a large sheet of paper, with those of a smaller sheet into which he wished the large one cut with the least possible waste. It was a simple operation in fractions and compound numbers, and the boy had done harder ones at school. But this was a practical application that was new to the boy, so he failed to stand the test, and lost a good position.

CO-OPERATION IN DISCIPLINE, MANNERS, AND MORALS.

The responsibility resting upon teachers of the deaf for the moral training of the children entrusted to them is far in excess of that which devolves upon other teachers. With few exceptions, deaf children enter school with their moral natures practically unformed. For nine months out of twelve, during ten or twelve years, these children are wholly under the guidance of the school, and the lack of ready means of communication precludes any but the most meagre instruction during the child's brief vacations at home. When our charges finally leave school, they have arrived at an age when their habits of thought and action are, as a rule, fixed for life, and for these habits the school and its teachers are almost wholly responsible.

Moral training, to be most effective, must be consistent and systematic. In a family where the father errs on the side of severity, while the mother is possibly too lenient, and grandma has her own peculiar way, the characters of the children are certain to be contradictory. The same is true, to a greater extent, in our schools for the deaf, which may be compared to large families, and where the variety of character-forming influences under which the children come is so much more extensive than in the ordinary family.

The importance of co-operation among officers and teachers in this character-building cannot be gainsaid. All the teachers must study the natures of the children

and seek for general guiding principles. No fixed rules can be made to apply to all cases of discipline. But there are general rules that experience has approved. For instance: Let the punishment be a natural consequence of the offence. Never punish in anger. Be sure the child understands why he is punished, for punishment inflicted on a child when he has not a realizing sense of his wrongdoing will injure rather than benefit the character.

Childish faults may be classified under four general heads: (1) Offences due to ignorance; (2) Offences due to carelessness; (3) Offences due to overflow of animal spirits; and (4) Offences due to perversity. Each class should receive a different treatment, and it would be a good thing for every school if all the teachers would unite upon certain general rules applicable to each class. As an illustration of the great diversity in the matter of discipline that sometimes exists among individual teachers, let me relate an actual occurrence: A boy of fifteen or sixteen was brought to school against his will by his father. In the class to which he was assigned he proved very troublesome. He refused to do anything the teacher directed him to. Even the superintendent could not overcome his stubbornness. He went so far, one day, as to threaten his teacher with his pocket-knife. As a last resort, he was transferred to another class. In a few weeks he was a well-behaved fellow, doing his work faithfully and cheerfully, and now, after the lapse of three years, he is one of the most courteous and popular boys in school. Cases like the preceding have undoubtedly occurred within the experience of all superintendents and principals. It is impossible that the nature of that boy changed suddenly. The explanation lies in the fact that the discipline of one school-room antagonized him; that of the other pacified him.

Co-operation is strongly needed to overcome certain personal habits of our pupils, among which may be enu-

merated dragging the feet, making noises in the throat, slouchiness when sitting or standing, grimaces when talking, indiscriminate use of abusive epithets, slovenliness of dress and person. All these and many others can be eliminated by perfect accord among the teachers, so that the fight against them is carried on year after year along the same lines. It is easier to go down hill than up, easier to unlearn than to learn; and one teacher who is slack or remiss may seriously damage, if not undo, the work of several others.

We want our boys and girls to become honest, upright, courteous men and women. It is ours to make them so. We cannot shift the responsibility. It rests upon us as a body, and as a body we should meet it, united, shoulder to shoulder, of one mind and one soul.

In our schools for the deaf, to-day, the regular meetings of the teachers for discussion and comparison, the courses of study, outlines, prepared lessons, etc., are all in the line of co-operation, and effective as far as they go. But do they go far enough? One way to increase co-operation is through a study of characteristic errors by means of a careful examination and comparison of examination papers and other written exercises, and then seeking to deduce general rules for overcoming these errors.

Another way is by means of daily, full records of their class work kept by the teachers for the inspection of the principal and of other teachers, particularly those of preceding and succeeding grades.

But the most effective aid to co-operation in a school for the deaf is the superintendent or principal of experience, especially one who has himself been a teacher, who has a clear and comprehensive mental grasp of the whole course from the lowest class to the highest, who visits the class-rooms daily, advising, instructing, or correcting where necessary, and who, like an able general, holds his

entire fighting corps well in hand, directing them so as to achieve the best results of their united strength. And it is for this reason that politics works such an injury when it replaces an experienced superintendent with one who, whatever may be his character and ability in other respects, knows nothing of the work which he undertakes.

There are some who will take issue with the contents of this paper, who will object to it as fettering individuality, as savoring of cast-iron rules and rigid lines. To such I would say that it is co-operation in principles that we want, not in details; in the spirit, not in the letter. It is that co-operation where several unite to seek the best and follow it. The plan of battle, while it insures co-operation of all the forces, does not preclude individual courage, and the petty officer or private soldier stands as good a chance as ever of winning the cross of the Legion of Honor.

The nearer we teachers come together, the more in unison we work, the fuller we realize our collective responsibility, the more we look to the work of others to improve our own, the greater will be our success. It will be the Macedonian phalanx against the Persian hosts.

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THE MEETING AT MILWAUKEE.

IT has been said that, in order to get a correct idea of the vastness of our country, one must travel over it. On the other hand, if one would realize the largeness of our enterprises as a nation let him attend a National Teachers' Association. Although the multitude seems innumerable, yet only a small per cent. of them are present. There are three hundred and fifty thousand teachers in our country. We know nothing so well calculated to take the

egotism out of one as to be projected into such a vast throng.

The meeting of the National Educational Association, held in Milwaukee in July, was a session of unusual interest to educators of the deaf of this country. For the first time there was a "Round Table" conducted in the interest of the deaf. The time devoted to this department, not only by those engaged in instructing the deaf, but also by members of the Association, was most encouraging.

In this brief sketch we cannot give the work of the Round Table in detail, but we may say that there were present pupils from the Milwaukee, Oshkosh, and other schools in Wisconsin and from the Chicago schools. Miss Garrett's school of Philadelphia had only one representative present; the failure of the rest of the class to appear was on account of a lack of means. The various day-schools of Chicago and Wisconsin and the institution at Delavan had excellent school exhibits, the latter also presenting an attractive display from the wood-working shop, in which sloyd has been introduced.

As the excellent addresses made and papers presented will probably appear in the proceedings, we will not attempt a review. One could but be impressed with the earnestness of those who had charge of the living exhibit and the unmistakable spirit of fairness shown throughout. There were present in the classes congenitally deaf pupils of not over average intelligence who were making commendable progress in the acquisition of speech and speech-reading. This statement might be misleading did we not assert that the same is being done in the State institutions. There were various grades of intellect as well as all ages represented in these classes.

The profession is aware that at Buffalo a year ago the deaf gained admission as a department of the National Educational Association under the title "A Department

for the Education of the Defective Classes." It was discovered later that some of the petitioners were not eligible, so it was found necessary at Milwaukee to perfect the admission. There the petition was renewed under the title "Department for the Education of Classes Requiring Special Methods of Instruction." Under this it is thought that educators of the deaf of all phases of belief as to methods, as well as teachers of the blind, can work. The following officers of the department were elected: President, Dr. J. C. Gordon; Vice-President, Miss Sarah Fuller; Secretary and Treasurer, Miss Mary McCowen. These officers, together with Miss Caroline A. Yale and Dr. Z. F. Westervelt, constitute the Executive Committee.

For the following reasons it seems to us that instructors of the deaf should co-operate heartily in availing themselves of the advantages of this union:

First. Our work isolates us. The tendency of such a condition is to narrowness. We need the broadening influence incident to this extended field of association.

Second. The benefit would be mutual. It cannot be denied that many of the more progressive methods applicable in general educational work have been practised for many years by educators of the deaf.

Third. Such a union would more fully identify us with the educational movements of the times and would tend to disabuse the mind of the public of the conception that our schools are asylums—a word which was once one of the sweetest in our language, but now has lost the old meaning.

Fourth. We are led to believe that the affiliation on the part of the National Educational Association would be most cordial. We base this belief upon the interest manifested in the address of Dr. Bell before the general Association, the large attendance upon the sessions of the Round Table, the deep interest taken in the exhibits, and

the constant flow of visitors, eager to witness the classroom work.

Fifth. It is a universal complaint that there are hundreds of deaf and blind children growing up utterly without training. Such a union as that nearly consummated would result in advertising our schools, as at least a summary of the papers of the Round Table would appear in the minutes of the Association. Copies of these reach every nook and corner of our country.

Sixth. If we would catch the spirit of progress that characterizes the movements in the educational circles of our times and would convey to the public a correct conception of what we are doing and thus be appreciated as a factor in the solution of the problems of our civilization, we cannot afford longer to hide our light under a bushel.

The union of the educators of the blind and deaf with those of the National Educational Association might be objected to on the ground that we have meetings of our own National Convention once in three years, and that the attendance upon this demands as much time and involves as much expense as the rank and file of our members would care to give. As an offset to this we may suggest that the success of the Round Table would not depend upon a large attendance of educators of the blind and deaf, though desirable; but probably a sufficient number of representative instructors could be secured to place the various features of our work before the public in an attractive way. The immediate localities of meetings of the Association could probably be relied upon to furnish the exhibits.

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Superintendent of the Minnesota School, Faribault, Minn.

NOTICES OF PUBLICATIONS.

THE many friends whom Mr. JAMINI NATH BANERJI, principal of the Calcutta School for the Deaf, made during his residence in England and America will read with interest his "Visit to the Institutions for the Deaf and Dumb (and the Blind) in England, Ireland, and America" (Calcutta: N. C. Bose. 1897. 12mo, pp. 91). The purpose of the book, the substance of which was delivered as a lecture in Calcutta, is to inform the people of India of what is done for the deaf in England, Ireland, and America, to arouse their interest in the thousands of the deaf among their fellow-countrymen, and to suggest the best means of promoting their welfare. Mr. Banerji tells his story in a simple, straightforward way that cannot fail to kindle the interest and sympathy of the reader. With respect to teaching language, he expresses himself in favor of the sentence rather than the word or element method; with respect to speech, he would teach it to every child with whom success is possible. Where success by the oral method is not possible he favors the manual alphabet, but finds it difficult if not impracticable to adapt a manual alphabet to the native language of India. Signs he would use freely with all pupils, but only "such signs as can be understood and are used by hearing people"—a definition broader in its scope than the author intended, since no signs to be found in any school for the deaf are more "conventional" than those that "can be understood and are used by hearing people" in southern Italy and among some of the Indian tribes of North America.

In the last volume of the *Annals* (xli, 413) mention was made of an extremely rare book which had recently come into the possession of Gallaudet College—the "Escuela Española de Sordomudos," by Lorenzo Hervás y Panduro.

In 1875 Mr. A. VALADE-GABEL, then an instructor in the Paris Institution, translated into French and printed the historical part of this work. He has recently published an analysis of the whole book, entitled "Étude sur l'École Espagnole des Sourds-Muets de Laurent Hervas y Panduro" (Grasse: E. Imbert & Co. 1897. 8vo, pp. 245). To us the chief value to the teacher of to-day of Hervas's work seemed to consist in its description of the achievements of the early Spanish instructors, Ponce, Bonet, Carrion, and Castro, but Mr. Valade-Gabel, whose careful study of it gives his opinion great weight, places a much higher estimate upon its worth. Indeed, he regards it as the best book on the education of the deaf that has ever been published. "No work devoted to the education of the deaf-mute," he says, "presents such a collection of materials skilfully combined; no other discloses so many exceptional qualifications in the author: to the knowledge of the theologian, the philosopher, and the linguist, Hervas adds a profound erudition." Mr. Valade-Gabel's analysis, while bringing the contents of Hervas's two volumes into the compass of one, gives all that is of value in the original, and places this comparatively unknown writer of the eighteenth century in the high position to which his merits entitle him.

The VOLTA BUREAU has supplemented its "Circular of Information, No. 3, International Reports of Schools for the Deaf," published in 1895,* by a "Circular of Information, No. 4, International Reports of Schools for the Deaf" (Washington. 1897. 8vo, pp. 7). The former publication was the more valuable of the two, as it gave full details concerning each school reported, while the later one merely contains summaries of statistics grouped by continents or countries. The number of schools now reported is 546, of which 221 are boarding-schools, 163 day-

* Reviewed in the *Annals*, vol. xli, pp. 339-342.

schools, 90 boarding and day, and 72 unclassified. This is an increase of 72 schools over the number reported in 1895. The increase in the number of boarding-schools reported is 28, of day-schools 57, of boarding and day 14, while the number unclassified is reduced by 27. This large increase in the number of schools reported is partly due to the establishment of new schools and partly to the addition of schools which existed in 1895, but had not been reported to the Bureau; but it is chiefly due to the enumeration as separate schools of the 52 classes of the London School Board and the five Chicago day-schools, which in the previous "Circular of Information" were counted as one school for London and one for Chicago. The apparently large increase in the number of day-schools, therefore, is not real.

The Bureau does not classify the schools according to methods of instruction, because it is of the opinion that such an attempt, "owing to the want of clearly stated, uniform, and generally accepted definitions, would prove misleading and result unsatisfactorily." It has, however, "divided the pupils, irrespective of schools, into two great groups, according to the *means indicated by which their instruction is effected*; the one group embracing all taught *by speech and other vernacular means*, the other *by the sign-language and any and all other means*." For these two groups it proposes the following definitions:

"By **SPEECH** and other **VERNACULAR means**" implies that reading and writing, speech and lip-reading, all forms of finger spelling or manual alphabets and natural gestures, such as are used in the instruction of hearing children, are admissible; that, however, any sign-language employing fixed expressions foreign to the grammatical construction of the language of the land, or a "language," or "dialect" of gestures not capable of word-for-word translation into the vernacular, is strictly excluded in the instruction of and intercommunication between pupils.

"By the **SIGN-LANGUAGE** and any or all other methods" implies that a sign-language acquired by the pupils at school constitutes, in a greater or less measure, the means of imparting instruction to them, and that it is used as a means of intercommunication between pupils and teachers.

In addition to this special language, finger spelling, writing, speech, and lip-reading are employed, when such means of communication are considered practicable or preferable in imparting instruction.

In the first group the Bureau reports 21,858 pupils, in the second 10,719, and unclassified 400, making a total of 32,977.

The definitions above quoted and the classification based upon them seem to us open to the following objections :

1. The definition of the first group states that with pupils of this group, which includes those taught by the exclusively oral method, "all forms of finger spelling or manual alphabets * * * are admissible"—a means of communication which the teachers by this method reject *in toto*.

2. The heading and definition of the second group, when taken in connection with those of the first, imply, though they do not assert, that in the instruction of pupils of this group greater prominence is given to the sign-language than to the language of the country, and that less attention is given to the acquisition of the language of the country than with pupils of the first group; neither of which implications is correct.

3. The definition of the first group describes the signs considered admissible in the instruction of the pupils as "natural gestures, such as are used in the instruction of hearing children." This is indefinite, for some teachers of hearing children use gestures a great deal, others scarcely at all. But, however the phrase may be interpreted, there are, as a matter of fact, few schools for the deaf in which gestures are not more used than they are in the ordinary instruction of hearing children.

4. The kind of sign-language referred to as excluded from the instruction and communication of pupils of the first group is doubtless intended to be the same as that referred to as used in the instruction and communication

of pupils of the second group; yet the definition of the sign-language given in the first paragraph is entirely different from that given in the second.

5. The definition of the first group not only states that the sign-language is excluded in the instruction of pupils, but also that it is "strictly excluded in the * * * intercommunication between pupils." As a matter of fact, however strictly the sign-language may be excluded in the instruction of pupils, there are very few schools in which it is "strictly excluded in the * * * intercommunication between pupils." Either with or without the approval of their teachers, the great majority of the pupils, in their communication with one another, use more or less some form of sign-language which, just as much as the sign-language used by pupils of the second group, employs "fixed expressions foreign to the grammatical construction of the language of the land, or a 'language' or 'dialect' of gestures not capable of word-for-word translation into the vernacular," and which, no less than the sign-language used by pupils of the second group, is "acquired by the pupils at school."

SCHOOL ITEMS.

Alabama Institute.—Miss Olive Hart has resigned her position as teacher on account of ill health, and the place has been filled by the appointment of Miss Lois Atwood, late of the Ohio Institution. Other new teachers are Miss Alice W. Ely, from the Clarke School, and Miss Bertha H. Gault, from the Western New York Institution.

Improvements have recently been made at a cost of about \$20,000. They include a new laundry and shops, boiler-house and stack, dormitory building, and additional work-rooms for the girls. Shoemaking is added to the trades taught the boys.

California Institution.—Miss Maria P. Orr, from the Western Pennsylvania Institution, and Miss Anita Gompertz, of Berkeley, have been appointed to fill vacancies in the corps of instruction.

The gymnasium has been greatly improved and arrangements have been made for conducting the department of physical culture on the most scientific principles. Mr. R. I. Carroll has charge of this department.

Clarke School.—Miss Alice W. Ely has gone to the Alabama Institute. Miss Hannah Wells has resigned, and Miss Mary A. Kathan is unable to return on account of ill health. Miss Gertrude Dustan and Miss Eva North, both of Hartford, have been added to the corps of teachers.

Colorado School.—Miss Tillie Garman and Miss Flora St. Clair retire from the teaching force, and Miss Ella Cornish as special teacher of the deaf-blind girl, Lottie Sullivan, also retires. Miss Rebecca E. Sparrow, late of the Rhode Island School, is appointed as head of the Oral Department, and Miss Alma L. Chapin, who has just finished the training course at the Clarke School, is selected as assistant in the same department. Mr. Max Kestner, B. A., a recent graduate of Gallaudet College, is appointed teacher in the Manual Department, and Mrs. G. W. Veditz succeeds Miss Cornish as instructor of the deaf-blind children, two of whom are expected this year. Mrs. W. K. Argo, teacher of articulation, has a few months' leave of absence to accompany her son to a lower altitude seeking health. Miss Jessie Dudley, M. A., a graduate of Colorado College and of the Normal Department of Gallaudet College, acts as a supply till her return.

Gallaudet College.—Dr. Joseph C. Gordon, who has been a valued professor in the College since 1873, has resigned the position to accept the superintendency of the Illinois Institution. This makes the first break in the ranks of the Faculty that has occurred for twenty-four years. Mr. Charles R. Ely, M. A., who has been an instructor in the College for the past five years, and last summer received a prize of \$150 from Columbian University for distinction in chemistry, is promoted to the professorship of chemistry held by Dr. Gordon,

and Mr. Allan B. Fay, M. A., of California, a graduate of Harvard and formerly assistant in Spanish in that University, is appointed instructor.

Georgia School.—Mr. Frank Bright, for the past year connected with the Mississippi Institution, has been added to the corps of teachers.

Plants for electric-lighting and for steam-heating have been introduced. The Industrial Department has been equipped with machinery for a general line of woodwork, and with outfits for printing, blacksmithing, and painting, in addition to the industries previously taught.

Illinois Institution.—The board of trustees unanimously adopted the following resolutions on the resignation of Mr. S. T. Walker :

Whereas Mr. S. T. Walker has this day tendered his resignation as superintendent of this Institution, and whereas this Board, after careful inspection of his work and having knowledge of the general sentiment of parents of pupils and friends of the Institution throughout the State as to his unquestioned efficiency, desire to commend the same: therefore, be it resolved, that this Board is well pleased with the condition in which they have found the Institution in all its departments and hereby recognize the good work done by Superintendent Walker during his four years of service, and in accepting his resignation we do so, feeling that his manifest zeal, faithfulness to duty, and high personal character, as well as ability, should commend him to any other similar institution requiring an efficient superintendent, should Mr. Walker desire to re-engage in his profession.

Dr. Joseph C. Gordon, formerly a teacher in the Indiana Institution, and for the past twenty-four years professor in Gallaudet College, has been appointed superintendent. The following additions to the corps of instruction are announced: Miss Alma Gillett and Miss Laura C. Sheridan, former teachers in this Institution; Miss Helen McCheane, lately teacher in the Nebraska Institute; Miss Mabel Gillespie, a daughter of the principal of the Nebraska Institute; and Miss Emma S. Hoyt, who was trained for oral teaching at the Clarke Institution.

Kansas School.—Mr. A. A. Stewart, superintendent in 1894 and 1895, has been reappointed to that office: Miss May Harman, Miss Myrtle Foote, and Miss Chettie Foster, who

are without experience in work among the deaf, have been appointed teachers. Miss E. J. Israel, after spending four years in the Iowa School, returns to Kansas to become head teacher. Mrs. Kate Herman, formerly Miss Kate Scallon, again takes up articulation work. Miss Mollie Medcraft, a teacher here from 1893 to 1895, is re-employed. Mr. J. T. Trickett, recently of the *Star*, is now publishing a paper called the *Baptist Review*, which will shortly be moved to Kansas City.

Kentucky School.—Miss Pattie B. Gentry, for many years a teacher in the Oral Department, resigned last June to be married to Mr. John Stout, of Danville. The vacancy was filled by the appointment of Miss Mary Breckinridge, who held a similar position in this School in 1895. Miss Hermine Haupt, also of the Oral Department, was granted a leave of absence until January 1, that she might make a visit to her old home in Austria. Mrs. W. K. Argo, of the Colorado School, will fill Miss Haupt's place during her absence.

Maryland School.—Miss Annie B. Barry, a successful teacher for many years, has resigned. The vacancy has been filled by the appointment of Miss Alto M. Lowman, B. Ph., a graduate of this School and of Gallaudet College.

Michigan School.—Miss Josephine Titus, from the sophomore class of Gallaudet College, has been appointed teacher of drawing for the lower grades. Misses Abigail Buckingham, Minnie Brabyn, Sarah Fenner, Linda De Motte, and Ida Austin, graduates of the Flint High School, who have devoted the past year to preparing themselves to teach the deaf, have been appointed teachers.

A pupil's savings-bank, intended to encourage the habit of saving among the pupils, has been opened.

Two new buildings, a workshop and a hospital for contagious diseases, which were provided for by the last legislature, are nearly completed.

Minnesota School.—Mr. H. H. Donnelly, M. A., a graduate of Columbian University and of the Normal Department of Gallaudet College, succeeds Mr. W. O. Connor, Jr., who has accepted a position as teacher in the Washington State School. Miss Alice J. Mott, who organized and has since conducted

the kindergarten department of this School, will probably take a year at Yale, having been awarded a scholarship there for a paper presented to that University. It is expected that she will return to her position here after she has secured her degree.

Missouri School.—Mrs. Ida McCue and Miss Louise Harris have resigned as teachers, and Mr. S. W. Gilbert, late of the Indiana Institution, and Miss Anna C. Allen, of the North Carolina Institution, have been appointed. Miss Allen has charge of the Oral Department, which is enlarged from two to four classes.

New Jersey School.—A building for hospital purposes is in course of erection. It is of brick, rough cast, to correspond with the other buildings belonging to the School, and will accommodate twenty patients. The water supply of the School is now filtered according to the most approved methods, and all drinking water for the inmates is boiled.

New York Institution for Improved Instruction.—A kindergarten cottage has been built this summer on the grounds of the Institution, at a cost of over \$30,000, to provide for the care and instruction of children as young as five years of age. It is fire-proof throughout. It is five stories high and has a play-room, dining-room, two class-rooms, dormitories for 25 pupils, and a number of bed-rooms for teachers and attendants. The surroundings of the little ones will be such as to cultivate the speech habit from the beginning. They will be under the supervision of competent kindergartners out of school hours, and will have their play-ground away from the older pupils.

North Carolina (Raleigh) Institution.—Rev. Jos. Perry succeeds Dr. A. W. Peagues, resigned, as supervisor. Mr. W. A. Caldwell, recently of the Georgia school, succeeds Mr. C. N. Williams as teacher. Miss Sally Upperman succeeds Mrs. A. W. Peagues, resigned, as teacher of an oral class, and Mrs. Rosa Cuffy has been added to the corps of teachers.

North Carolina (Morganton) School.—Mrs. Anna C. Hurd has been appointed chief instructor of the Oral Department. Miss Daisy Winston Young, a daughter of the former principal of the Institution at Raleigh, has been appointed to teach

in the Manual Department. Misses Hesta Reed, Annie Ervin, and Mattie Simms are student teachers, taking normal training in the Oral Department.

North Dakota School.—The vacancy in the corps of instructors caused by the marriage of Miss Joanna Randolph has been filled by the appointment of Miss Minnie E. Morris, B. A., a graduate of Gallaudet College.

Palmacottah (India) School.—*Ephphatha* for July announces that a school for the deaf has been opened at Palmacottah, Southern India, by Miss Swainson and Miss Askwith, English ladies. There are about a dozen pupils. Miss Swainson has already trained a native teacher for the girls and is training one for the boys. She has adapted the manual alphabet to the Tamil characters, and the pupils are learning to read and write.

Royal Cross School.—With the consent of her Majesty Queen Victoria, the title "Royal" has been introduced into the name of the Cross School at Preston, England, and the new name will be "The Royal Cross School for the Deaf of North and East Lancashire."

South Carolina Institution.—Miss M. M. King, teacher in the Oral Department, has resigned, and Miss Virginia E. Walker, daughter of the superintendent of the Institution, has been elected to fill the vacancy.

Texas School.—Mr. W. A. Scott and Miss Birdie Casper, both teachers in this Institution, were married June 15, at the residence of the bride's parents, in Austin. Mrs. Scott resigned her position as teacher, and the vacancy has been filled by the appointment of Miss Joe Johnson, of Austin. The last legislature made an appropriation for two additional teachers, and Misses Nannie Jones and Olivia Orr, of Austin, have been appointed to fill these positions.

Utah School.—Mr. William S. Marshall, teacher in the Iowa School for the past nine years, will teach in the Utah School this year. Miss Lucia E. Hanna, late of the Indiana Institution, takes the place of Miss Katharine King, resigned. Miss Clara V. Eddy, a student of Gallaudet College last year, is appointed teacher of art. Mr. Frank M. Driggs has been

granted a year's leave of absence to take the normal course at Gallaudet College.

During the summer an "Annual" of sixty pages, fully illustrated, was issued from the School press.

Virginia Institution.—Miss Frances Burr Way, who has been teaching in the Florida School, was elected last June to take charge of an articulation class which will be re established in this school at the beginning of the next session. Mr. G. D. Euritt, teacher of the first class, was promoted to the high class to fill the vacancy caused by the death of Mr. DeLong. Mr. H. M. Chamberlayne, teacher of the second-class, was promoted to the first class, and Mr. S. C. Jones, who has been connected with the school in several capacities for a number of years, was elected teacher of the second class.

Western Pennsylvania Institution.—Miss Maria P. Orr, who had been connected with this school for many years, has resigned to accept the place of teacher in the California Institution. Miss Mabel Libby, of Portland, Maine, who spent last year in the Portland School, has been called to fill the vacancy thus created.

The hospital known as "The William and Jane Holmes Memorial Hospital" was dedicated a few weeks before the close of the last term of school. This was built from the proceeds of a legacy from Mr. and Miss Holmes. The furniture for the building was made by the boys of the carpenter shop under the direction of the foreman, and much of the carpenter work of the house was also done by them. It is larger than is needed at present and will answer the needs of the Institution for many years to come.

Wisconsin School.—Miss Laura Sparks, who taught last year in Mrs. E. B. Phoenix's absence, does not return; Mrs. Phoenix resumes work after a year's absence in Europe. Miss M. D. Fonner, formerly of the McCowen Oral School, has been permanently engaged in the Oral Department and Mr. W. F. Gray is transferred to an oral class. This gives a majority of the teachers oral work, and apports about half of the pupils to speaking classes. The manual-training equipment is now made complete by the installation of eight of the latest style down-draft Buffalo forges.

MISCELLANEOUS.

Supervision out of School.—The question of the supervision of pupils out of school has received much discussion of late in the conferences and periodicals of our English brethren. Nearly the whole of the *Quarterly Review* for July is devoted to a "symposium" on this subject. In the past the position of teacher in an English school for the deaf has generally meant "a frequent daily, or an occasionally weekly, burden of fourteen hours of continuous duty per day," and the tasks he has had to perform have been such as "only properly belong to the nurse, the caretaker, and the domestic," including "anything from superintending children's washing to attending a boiler or cleaning a swill-house." It is not strange that under such a system "the teacher on 'duty' days welcomed school-time as an opportunity of getting a much-needed 'rest,' " and that in many other ways the educational efficiency of the schools has been seriously impaired. But a brighter day for the English teacher seems to be dawning. Already in the Doncaster, Preston, and Ulster Institutions the American system of supervisors has been introduced and there seems good reason to hope that this much-needed reform will soon make its way into all the schools, leaving the teachers free to devote their best energies to the work of the school-room.

Classes in Common Schools.—The Illinois legislature at its last session passed an act authorizing school districts throughout the State "to establish and maintain classes for the deaf in the public schools, and authorizing payment therefor from State common-school funds." The deaf of the State opposed the act on the ground that the educational advantages offered in the Institution at Jacksonville are greater than could be afforded in the proposed classes in common schools. The text of the act is as follows :

SECTION 1. *Be it enacted by the People of the State of Illinois, represented in the General Assembly:* That upon application by a board of education or directors of any school district of the State to the State

Superintendent of Public Instruction, he shall grant permission to such board of education or directors and such board of education or directors shall thereupon be empowered to maintain as part of a public school, within its limits, one or more classes, having an average attendance of not less than three pupils, for the instruction of deaf persons over the age of three and under twenty-one years, residents of the State of Illinois.

§ 2. Such board of education or directors which shall maintain one or more classes for the instruction of the deaf shall report to the State Superintendent of Public Instruction annually, and as often as said State Superintendent shall direct, such facts concerning such class or classes as he may require.

§ 3. The county superintendent of schools in each county is hereby authorized and directed to apportion and pay, out of the State common school fund received by such county, to the treasurer or other financial officer of such board of education or directors maintaining such class or classes for the instruction of the deaf, the sum of one hundred and fifty dollars for each deaf pupil, resident of such county, instructed in any such class for at least nine months during the school year, and a share of such sum proportionate to the term of instruction of any such pupil as shall be so instructed less than nine months during such year. If no such class shall be maintained in a public school in any county, but persons residing in such county shall attend such class in an adjoining county with the permission of the county superintendent of the county not maintaining such class, then said superintendent shall pay to the financial officer of the board of education or directors of the district maintaining such class the amount above specified for each pupil attending such class in such other county.

§ 4. The sums provided in the next preceding section shall be paid by such county superintendent of schools as soon as may be after the receipt by him of the State common school fund in each year, upon satisfactory proof being made to him by the president and the secretary or clerk of such board of education or directors maintaining such class, of the number of pupils instructed in such class or classes, and their residences, and the period of time each such pupil shall have been so instructed in such class or classes for the preceding school year.

§ 5. All teachers in such classes shall be appointed by the State Superintendent of Public Instruction upon application of the board of education or directors of the school district maintaining such class or classes; the State Superintendent of Public Instruction to have the power to remove such teachers for cause. No person shall be appointed to teach any such class who shall not have first obtained a teacher's certificate, as provided by law, and who shall not have received specific instruction in the teaching of the deaf for a term of not less than one year.

President Gallaudet's Mission.—The foreign periodicals for the deaf contain full and enthusiastic reports of President Gallaudet's recent visit to Europe, described in his letter in the present number of the *Annals*, and express the earnest hope that much good will result from it. The Address from the Officers and Directors of the Columbia Institution, also published in the present number of the *Annals*, has been translated into Italian by an assistant of the American Embassy at Rome, and into German by Mr. A. M. Watzulik, a deaf man of Altenberg, and a French translation is announced for publication by the deaf of France.

Death of Mr. Magnat.—Mr. Joseph Marius Magnat, a French teacher of the deaf and author of a "Course in Articulation," "Reader," and other works relating to their education, died in New York May 24, 1897, of Bright's disease. Mr. Magnat was trained for the work of teaching the deaf at Geneva, Switzerland, by Mr. J. Hugentobler, now director of the Lyons Institution. He was director of the school founded by the Péreire family in Paris from its establishment in 1875 until its discontinuance in 1886, and afterwards conducted a private school at Rueil, a village near Paris. This school was also discontinued, and in 1896 Mr. Magnat came to America. He took an active part in the meeting of the American Association to Promote the Teaching of Speech to the Deaf held at Mt. Airy last year, and afterwards was engaged in New York in teaching French and preparing some works for publication. On the 22d of October last he was married to Miss Anna M. Coley, an American lady, who survives him, and who hopes in time to have all his works published.

ADVERTISEMENT.

WANTED, by a young lady with six years' experience as a teacher, a position in a deaf-mute school. References given. Address M. L. C., Box 391, Barry, Illinois.

AMERICAN ANNALS OF THE DEAF.

VOL. XLII, No. 6.

NOVEMBER, 1897.

THE MODERN MOLOCH.

I.

THIS is pre-eminently an age of experiment. The laboratory has become all-powerful and its votaries look to it for the settlement of a thousand theories and ten thousand disputes over nature's myriad secrets. First mere hypothesis, then experiment, and finally demonstrated falsehood or truth—this is the steady round of modern science, the regular and beaten track of the searchers after truth.

A scientist watches with thoughtful, questioning gaze the strange action of a geyser. He cannot rest till nature has yielded him her secret. Suddenly there breaks upon his mind a possible solution of the problem. He straightway goes to his laboratory, constructs an artificial geyser in miniature based upon his hypothesis, and in breathless suspense starts the geyser-play. It succeeds, and there again in faithful repetition he sees the giant geyser's mysterious action. But the mystery has vanished! Thus, on every hand, with physical apparatus and chemical reagent, with microscope and scalpel, with the art of experimentation developed to its highest efficiency, the man of science is conquering the practical problems of the world. He is laying out for us the paths along which our brief span of

life may be expended with the least resistance and the greatest return to the greatest number.

Observe, however, that in the vast majority of experiments made by science the material used is without consciousness, suffers no pain or loss, and emerges from its ordeal in the laboratory neither better nor worse than at the beginning. The miniature geyser was made of metal and glass, and filled with heated water. Physical and chemical agents, metals, liquids, all these things enter in and come out of all experiments unaffected in the last analysis. Even biological experiments employ materials drawn from the plant and brute worlds, where self-consciousness or immortality does not exist, and so no eternal consequences to conscious beings are involved.

But this modern rage for the construction of theories and hypotheses, which must be proved or disproved by elaborate experimentation, has invaded realms where the sole available material consists, not of the inanimate or non-selfconscious, but of the precious, helpless bodies and minds of children, whose childhood is their one solemn opportunity to prepare for life and eternity, and who will awake some day in manhood or womanhood to bless or curse the hands that moulded them.

The little ones, the children, they come to us from the hand of God, and with us stay year by year, depending, confiding, submissive, because they believe us when we say that we are wiser than they and our ways are better than theirs, or else because with the resistless machinery of a system we drive them onward in herds to suit our own plans. What though deepest instincts may rebel, and violated nature, rebounding upon the child, may distort or stunt its growth from what it might have been? So far away and misty are the experiences of our own childhood, so near and absorbing are our own plans, theories, and ambitions, that we sometimes gather the children in to train for after-life, and straightway fall to using them

for our own experiments, for the vindication of theories, and the advancement of self-interests, forgetting that children are not as metal or liquid in our hands, and that our schools are not mere laboratories.

True enough, this is putting it strongly. Yet in pondering over the accumulated literature of education, and especially over that of deaf-mute education from the days of Heinicke and De l'Épée till now, I have often laid by book and pamphlet with an irresistible feeling that the deaf have too often suffered a double misfortune; that in addition to the loss of hearing they have too often been simply the material for desperate efforts to vindicate rival theories, rather than the object of a pure, sincere, and single-eyed desire to elevate them to the highest possible plane in life. The annals of all education, in fact, have something too much of this debasing alloy amid much pure gold.

It is worth while for us to consider how we all stand in reality with regard to this solemn and significant matter. Mere professionalism is insidious and dangerous. It invades, for instance, the legal profession and presently leads many of its members to recede unconsciously from the broad human standard of right and justice into a certain narrow artificial standard, that permits acts and methods repulsive to honorable manhood. It is so in money-making circles everywhere. It creeps into the very folds of religion, and beguiles the ministers of God on earth to think more of upholding ecclesiastical formulæ and sectarian dogmas than of urging upon sinning men the life and teaching of the Son of Man. Its subtle poison long ago entered the arteries of our own profession, leading us frequently to be more passionately and energetically engaged in the promotion of a dogma of method than in earnestly watching the actual life of the children themselves, to learn of them the true method or methods, and to see that they are happy, that they grow in nature's wise

way, and that in after-life they really possess all that we so busily proclaim them to have after finishing our particular courses of instruction.

Laboratory experiments have their just place, and even in child-training experiments have a place, but let us watch with open eyes how far we go in this delicate process. It must never be forgotten for an hour that true science searches for facts and tries experiments not merely to perpetuate against all comers some prearranged theory, but purely to reveal truth. The loyal scientist relinquishes his hypothesis, the child of his own brain, with all cheerfulness when advancing knowledge condemns it. The world was centuries in learning this hardest of all lessons, and it still remains unlearned in many places—perhaps even in our own profession.

At any rate, we can but hold ever before our minds those elemental facts, the vivid and continuous realization of which can alone save us from lapsing too much into narrow professionalism of the kind fatal to all true and broad progress. We must remember that our children are gathered in from an encircling world of human nature, whose delicate and profound laws govern all alike, whether deaf or hearing, that they have the same deep child-need for the fulness of play and frolic as other children, and hence for some means of easy spontaneous intercommunication during a large portion of each day, and that finally they must return soon to that outer world to live in happy contentment or bitter disappointment, according as we have dealt with them. Do we sufficiently study that after-life of our pupils? Do we keep in touch with those conditions of life into which we launch the children, and do we really know by something better than conjecture just how they fare, whether better or worse, as the result of this or that experiment of ours? If we do not, it is time for us to get about remedying so glaring a defect in what might then be called "the science" of our work.

II.

Many crimes have been committed in the name of liberty, of justice, and even of religion—are we perfectly sure that none are being committed to-day in the name of education? It is an infirmity of men, written far and wide on the pages of history, to be eaten up with zeal in a cause at first righteous and beneficent, it may be, but in the end carried too far and made a fetish to which many victims are sacrificed. The world is better now than in the years of the Inquisition or the Reign of Terror, yet the roots of human nature remain essentially unchanged, and we of the present age need to watch ourselves sharply, if we would not repeat history under new forms.

Among the causes that now excite the interest and enthusiasm of this generation is that of education. Certainly no grander or more beneficent movement than this could occupy and exercise the minds of men, unless it were possibly the promotion of Christianity directly considered, and yet even in the name of Him who would not crush a bruised reed men have martyred their brethren by the thousand. It is not impossible, then, that even now, in this era of splendid achievement all along the line, there may be a martyrdom of thousands in the name of education, and future history be called upon to record the strange repetition of human folly—the latest casting of helpless children into the arms of a new Moloch. Do you question the possibility of this? Let us see.

Within the past year, I have talked with a good many representative teachers and officers connected with the national school system of Great Britain, and, among other things, we discussed quite freely the “results fees system.” Under this the national school teachers receive a special fee for every pupil that passes certain annual examinations conducted by government inspectors, the fees being

in addition to a regular fixed salary. How does this system, apparently just enough, really work out in practice?

I was told by all that it simply tended to ruin the children. It stimulates the teachers to push their pupils to the utmost, bringing to bear upon them every possible form of pressure, either in the form of severe punishments for the least delinquencies or of strong incitements to hard study in the way of attractive rewards for excellence. Result: overstrain of immature children, physical breakdown in the delicate or the too-willing, violent rebellion or systematic deception in the sturdy and strong, weariness and hatred of school-life, the whole being capped by a strong tendency to be fully satisfied with mere artificial "cramming" along specific lines laid down by inspectors. The children are made old before their time by continuous forcing into unnatural channels of life and activity, such as mother Nature never intended childhood to endure.

Here, then, is a plain case in the realm of education where "the zeal of thine house hath eaten me up." We see how the complete ruin of children may be brought about by a system inaugurated and promoted with the best intentions and for the good of children—not their sacrifice. So strong has been the growing condemnation of this system, however, that it has been dropped already in England, and doubtless will eventually be relinquished also in Ireland.

Again, we frequently hear emphatic complaints regarding the overpressure brought to bear upon young boys and girls in our high schools and colleges, in the desperate attempt to stuff them with classics, literature, mathematics, languages, and a dozen branches of natural science—all within the shortest possible period. The rivalry among educational institutions in the competition for patronage leads them periodically to advertise longer and more ambitious curricula, and then to put extra pressure on

their students to master them all. Not only so, but internally the work of many such institutions is abnormally stimulated by the rivalry of energetic and ambitious professors, each anxious to keep his own specialty well to the front, and thus led into placing too many and great exactions upon his students. The latter are forced to over-study and ultimately to utter breakdown and the defeat of all practical aims in life. Very recently I saw a long and bitter complaint of this evil in the *New York Nation*. Especially do we hear of young girls being wrecked for life in this way.

Now, all these things are clear evidences of an excessive zeal in the name of education, and show us that not yet is martyrdom extinct among men. But let us turn now to another and peculiarly isolated department of education, from whence we begin now to hear a cry as of men who find themselves the victims of a kindly meant but none the less mistaken course of treatment under the name of education.

Among the many achievements of modern times, not the least noble and beneficent one has been the development of complete education for the deaf, and yet further, within that sphere, the bestowal of speech upon thousands of the dumb, which is a glorious victory for love and patience. A nobler, better, more purely Christ-like cause than this never fired the heart of man with zealous enthusiasm. Again and again, as if to ensure the attention of a negligent world, the Galilean teacher explicitly directed his own healing powers to members of this ignored class, and in the fulness of time his great implied command has been faithfully executed. Thousands of them that walked in endless silence may lift their hands to-day, and not their hands only but voices also, in thankful praise to their Redeemer, who cared not alone for the future life, but for the happiness of this earthly life as well.

But stay a moment! Would we have the purity and fair name of our good cause stained by any martyrdom to an excessive zeal, as the greater enveloping cause of Christianity itself has been blotted by sacrifices on stake and rack? Let us not throw off any thought of this with an exclamation, "Impossible!" The thing *is* possible, and according to the inexorable lessons of history it may even be probable.

Without a question, it is a thing infinitely to be desired that all the dumb should speak, and that the deaf in their conversation with men should put away all thoughts of their deafness. If, like our Saviour, we could quietly "o'erleap the bounds of nature" and restore to the deaf that which is lost, how gladly would we perform the miracle! But to mortal flesh this is not vouchsafed.

Under our human limitations the precious boon of speech for those who hear no human voice must be bought with a price. Minimize it, ignore it, close our eyes to it as we may, it is bought with a price—not counted merely in gold and silver (would that it might be!) but in hours and days of precious childhood devoted to strenuous patient mastery of infinite details, never dreamed of by the hearing child, which absorb energies that might be, ought to be, applied in certain other directions of unspeakable importance to mind and soul; in forbidden freedoms, natural to childhood, but sacrificed for ultimate ends; in lost advantages, which are enjoyed by those who are early given a freely flowing language for the exercise of heart and mind in the hours of play, and under the spell of platform eloquence. It is a thing every deaf child must reckon with. For the privilege of speech and lip-reading, except in the case of a relatively small percentage, he must pay heavily, and as it were with his very heart's blood.

But what if the price be paid, the heart-life and the mind-life delivered entire into the hands of the pure oral

instructor, cheerfully, hopefully, trustfully—abiding in the promises made of a future complete restoration of speech, that shall be almost, yea, and perhaps fully (so it is intimated) the equal of that in the broad world beyond, with nothing lost in the growth of mind and heart, according to the guarantee—what if all this be done, and the critical, irrevocable years of childhood vanish, the course is finished, the school-doors close behind, and then amid friend and stranger, work and pleasure, all the hurried, exacting, inconsiderate world, which has no special theories to promote, the great promised boon begins to shrivel, to fail somewhat here and to vex the mind there, and, at last, even to fall, as often happens, into disuse, like some costly but rusted machine, of which much was once expected, but now is more and more left to itself in some odd corner?

Is this a mere bit of imaginative supposition? As you read it, friend of the deaf, do you recognize no type, of which instances in greater or less number are well known to you? There is wide variation in degree of similarity to this type, but still you cannot have known many of the deaf without knowing some that are cases in point. Are these not martyrs of modern education in one of its phases, the companions in sacrifice of the child undone under that "results fees system" and of the boy or girl wrecked by overpressure in collegiate work? It may be unpleasant to confess it, but even our own profession is liable to error, like other professions, and I believe we are sacrificing our victims on the altar of an enthusiasm pushed too far.

Meanwhile, there is but one way by which we may develop a corrective influence to restrain and guide us clear of such pitfalls. We must rise up and go out from our offices, our class-rooms, our conferences, where most impressive theories may be forever ventilated without successful contradiction, away from the absorbing fumes

of professional anxieties and duties, out into the wide, wide world where our pupils have gone to meet their fate, and there see them on the farm and in the city, in the factory, the shop, the home, living as citizens, as parents, it may be, rejoicing in days of good fortune or mourning in the hour of trial, and here we shall learn at last to know whom we have really saved and whom we have sacrificed. We must go and talk with the men and women who were once children in our school, and they can tell us, as none other can, how our theoretic methods have turned out amid the stern realities of life's long battle.

If we do this, we shall find already hundreds in Europe and America who have paid their price, and have duly received such power of communication with society by speech and lip-reading as could be given. How goes the day with them? Do not select "the chosen few," who have reached exceptional success, and herald these abroad as representatives of their class. This may throw dust in the eyes of the public, but it cannot deceive the trained expert in our work. Besides, this is a barefaced falsehood in logic, an insincerity that science brands as criminal. The few gifted ones are precisely those who need concern us least. It is the mass of them, the humble mediocre ones, undistinguished by exceptional attainments and therefore quickly hurried back into convenient obscurity, to whom we must go for the real, honest, and courageous test of our work.

And how is it at the present time? From the Baltic to the Mediterranean, from the Danube and the Rhine to the Mississippi, a wide-spread murmur of disappointment, dissatisfaction, and protest is beginning to be heard. For a generation past, almost superhuman efforts have been made from Germany to Wisconsin to perfect the pure oral method, yet its actual results under the tests of life are proving a profound disappointment. The very beneficiaries of that method are declaring that it is insufficient.

On every side they are falling back with a sense of relief upon the sign-language and manual spelling, because these quickly satisfy an ineradicable need of head and heart—a longing for something forever missed in artificial speech and lip-reading. Among many gathering evidences, listen to the testimony of one who has recently taken the pains to visit the countries of Europe thoroughly, and observe the universal reception accorded to him by the adult deaf of all nations, simply because they know he represents not the narrow method that excludes all but speech and lip-reading, but the broader system that includes all that may render more full and happy the life of silence. I myself saw his reception by the deaf of Great Britain, and nothing could exceed the warmth of his welcome. The earnest sincerity of his testimony compels the respect even of the most emphatic opponents, and seems all but conclusive to the open-minded.

Yet there are those who would blind their eyes to all these things, and with a zealous enthusiasm, more creditable to the heart than to the head, push forward their favorite method to the exclusion of all else. With a desperate determination to prove that it is *possible*, at least, whether sensible and practical or not, to teach speech and lip-reading to the deaf of all descriptions, they place speech and lip-reading upon a lofty pinnacle of idolatry, so high that no sacrifice can be too great to achieve it.

Have we not here a repetition of that form of excessive zeal, even in a good cause, which overleaps itself, and rushes perilously near to that peculiar state of mind which is willing to sacrifice all things, not excepting humanity itself, in order to promote its own creed among men?

Let every earnest open-minded student of the things that concern our beloved work cast his eye over the field to-day, and, remembering the stern lessons of history re-

garding the possible errors of well-meaning men when captivated by a creed, a theory, or a "cause," ask himself in all sincerity these questions: Are we making or shall we make martyrs to the cause of education? Are we unconsciously making of our schools mere laboratories for the determined vindication of prearranged hypotheses, ignoring whatever may happen in the distant after-life of the children, once they have departed from our doors forever?

These are unpleasant questions to face, yet we shall face them squarely, if our intentions are honest. Gazing upon the strange sad lesson of history, again and again repeated, surely we shall not go blindly forward, and presently add to the dark record another example for future generations to study as a curious illustration of persistent human fatuity.

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A SPELLING TEST.—I.

UNDER the direction of Doctor Lightner Witmer, University of Pennsylvania, a number of mental tests of school children have been made by officials of public schools in Philadelphia and elsewhere. One of the most interesting of these tests was so simple that teachers were at first inclined to reject it as worthless. The pupils were given pencil and paper and told to write all the words they could think of in fifteen minutes. The words were written one after another in vertical columns. It was desired that pupils should write words just as they came into mind; that no selection should be made. The easiest way to attain this end was to urge that the pupils should write as fast as possible, so as to give little opportunity for reject-

ing certain words that appeared upon the mental horizon and substituting others, as there is a strong inclination to do.

When written under such conditions it was thought that word lists might throw some light upon the association of ideas. There must be some reason why one word suggests another; and an examination of a great many such lists might result in increased information concerning the association tracts of the mind. What will be accomplished along this line remains to be seen; but, like many other mental tests, if the desired results are not attained, much else has been learned.

It occurred to Doctor Witmer that these word lists might be used as a spelling test, supplementary to those made by officials of the public schools; but, owing to the conditions under which they were obtained, he thought the percentage of misspelled and illegible words would be very high. Some, on the other hand, might object to this test on the ground that the pupil, wishing to write as many words as possible, would select the shortest and easiest to spell. An examination of the papers, however, would convince any one that such was not the case. Most of the pupils who did start with this plan in view soon rejected it as slow, because they found that they wrote fewer words than if they wrote down words as they came to the mind, regardless of length or difficulty of spelling. These word lists are fair selections from the pupil's vocabulary, and represent the dominant idea-groups in his mind. I think these lists of words are the fairest test of spelling that I have seen, because the words are drawn from the pupil's own vocabulary, not from a list of words which he seldom or never uses. He is a good speller who spells correctly the words which he himself uses. He should not be tested in my vocabulary.

I think it would be of interest to teachers of the deaf to study the results of spelling inquiries of this kind, and to

compare the spelling of pupils in the public schools with the spelling of the deaf ; so I shall present three tables of results : the first of the Northwest School, compiled by Principal Oliver P. Cornman ; the second of the Fox Chase Consolidated School, by Principal Oscar Gerson ; and the third of the Pennsylvania Institution for the Deaf and Dumb, compiled by me.

TABLE I.
Northwest School.

Grade.	School year.	No. of pupils.		Average age.		Total No. of words written.		Average No. wds per pupil.		Per cent. correctly spelled.		Total No. illegible words.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
12	8th.....	34	36	14.6	14.8	8,179	7,032	241	195	98.1	99.2	10	0
11	7th.....	29	36	13.3	14.0	6,646	7,136	229	198	97.0	97.3	43	4
10	6th.....	40	11	12.8	12.7	6,747	1,760	168	160	96.2	95.0	11	0
9A	5th, 2d half.	31	43	12.2	12.4	5,044	6,523	162	151	92.2	97.0	128	7
9B	5th, 1st half.	31	40	12.0	12.1	3,591	5,239	115	130	94.2	95.2	11	2
8	4th, 2d half.	14	18	11.7	11.4	1,755	2,377	125	132	94.5	96.9	0	0
7	4th, 1st half.	38	23	11.3	11.0	3,889	3,063	102	133	91.0	94.9	22	7
6	3d, 2d half ..	24	19	10.6	10.9	2,676	2,044	111	107	92.6	94.7	7	4
5	3d, 1st half.	10	25	10.4	9.7	831	2,135	83	85	89.6	95.8	3	1
Summary of results		251	251	14.6 to 10.4	14.8 to 9.7	39,358	37,311	241-83	198-85	98.1 to 89.6	99.2 to 94.7	235	25

It will be seen by referring to Table I that in the Northwest School, 34 boys of the twelfth grade wrote 8,179 words, on the average 241 per pupil, of which 98.1 per cent. were spelled correctly ; 36 girls of the same grade wrote 7,032 words, on the average 195 per pupil, 99.2 per cent. of which were correctly spelled ; 14 boys in the eighth grade wrote 1,755 words, 125 per pupil on the average, with 94.5 per cent. correct ; while 18 girls of the same grade wrote 2,377 words, on the average 132, of which 96.9 in every hundred were correctly spelled ; 24 boys of the sixth grade wrote 2,676 words, an average of 111 for each boy, of which 92.6 in every hundred were spelled correctly ; and 19 girls wrote 2,044 words, 107 per pupil

on the average, with 94.7 per cent. correct. Thus in every grade the girls spell better than the boys. It will be seen that both boys and girls increase in the number of words written, and there is an improvement in the spelling as we go from the lower to the higher grades. The girls are also much more careful. Of 260 illegible words, the girls wrote only 25.

TABLE II.
Fox Chase Consolidated School.

Grade.	Average age.	Sex.	No. of pupils.	Total No. of words.	Average No. of words written by each pupil	Per cent. of words spelled correctly.	Total No. of illegible words.
12.....	15	{ Boys 4 Girls 2 }	6	1,422	237	98.4	0
11A.....	14½	{ Boys 1 Girls 9 }	10	2,392	239	98.1	1
11B.....	13	{ Boys 1 Girls 10 }	11	2,561	233	98.0	0
10A.....	13½	{ Boys 2 Girls 4 }	6	1,022	170	97.2	0
10B.....	12½	{ Boys 4 Girls 7 }	11	1,965	178	96.7	4
9B.....	10½	{ Boys 6 Girls 5 }	11	1,662	151	97.7	7
8.....	10½	{ Boys 4 Girls 4 }	8	965	121	97.7	1
7.....	10½	{ Boys 2 Girls 8 }	10	1,068	107	95.3	5
6.....	9½	{ Boys 1 Girls 17 }	18	1,822	101	96.8	5
5.....	9½	{ Boys 1 Girls 6 }	7	593	89	91.1	2
Totals and averages.	11½	{ Boys 25 Girls 77 }	102	16,115	158	96.6	25

The results from the Fox Chase School—see Table II—corroborate these results to a surprising extent. In this school 6 pupils, 4 boys and 2 girls, in the twelfth grade wrote 1,422 words, on the average 237 per pupil, with 98.4 per cent. correct; 11 pupils in the eighth grade wrote 1,662 words, an average of 151 each, with 97.7 per cent. correctly spelled; and 10 pupils of the sixth grade wrote 1,068 words, 107 words per pupil on the average, with 95.3 in each hundred correct. Again, we see the steady increase from grade to grade in the number of words written and in the ability to spell correctly.

From these tables we find that in the two schools 604 pupils wrote a total of 92,784 words, on the average 153 for each pupil, of which 95.7 per cent. were spelled correctly. Of this large number of words written so hurriedly only 285, or .3 per cent., were illegible. The excellence of this work was a surprise to Doctor Witmer and to all working with him.

TABLE III.

Pennsylvania Institution for the Deaf and Dumb.

		Number of pupils.	Number of words.	Number of words misspelled.	Average number of words written by each pupil.	Percentage of words spelled correctly.	Number of illegible words.
Manual Department.	Boys...	22	4,125	70	188	98.3	8
	Girls...	20	3,584	86	179	97.2	9
	Total.	42	7,709	156	183	97.8	17
Intermediate Oral Department.	Boys...	26	2,669	99	103	96.2	1
	Girls...	17	1,494	65	87	96.6	0
	Total.	43	4,163	164	97	96.	1
Advanced Oral Department.	Boys...	15	2,766	59	184	97.8	11
	Girls...	36	5,447	136	161	97.5	26
	Total.	51	8,213	195	161	97.5	37
Mixed.	Total.	12	2,285	77	190	96.6	22
Totals and averages.	Boys...	63	9,560	228	152	97.6	20
	Girls...	73	10,515	287	143	97.2	36
	Mixed...	12	2,285	77	190	96.6	22
	Total.	148	22,360	592	161	97.3	77

Table III gives results in the case of 148 pupils of the Pennsylvania Institution for the Deaf and Dumb. These pupils wrote 22,360 words, 151 words per pupil on the average, of which 97.3 per cent. were correctly spelled, and the percentage of illegible words was .3. Compared with the hearing, this table gives the deaf the place of advantage. The average number of words written by the

hearing child was 153 ; that of the deaf child 151. But, while the hearing child wrote a few more words, he made a much higher percentage of mistakes, 4.3 per cent., while the average deaf child's percentage was only 2.7.

Except in isolated cases, the method of instruction, oral or manual, seems to have no permanent effect upon spelling. The pupils of the Manual Department, 42 in number, spelled correctly 97.8 words of each hundred, while 51 pupils of the Advanced Oral Department made a percentage of 97.5. The manual pupils wrote 183 words on the average ; the oral, only 161. At first I attributed this advantage in favor of the manual pupils to the method by which they had been instructed, a method requiring more writing than is usually demanded of oral pupils ; but, upon closer investigation, I found that as a rule the manual pupils were older and more mature than the pupils of the Advanced Oral Department.

Among the hearing pupils, the girls made the better record in neatness, in accuracy, and in legibility ; but among the deaf we find the boys surpass the girls in every respect—in number of words, in legibility, and in correctness.

I think we may regard the mistakes of these 148 pupils as typical errors of the deaf. In a future article for the *Annals* I hope to point out some of the most common errors into which the deaf fall. By knowing beforehand about what words our pupils are likely to misspell, I think we can be better prepared to correct the mistakes when they appear ; and in some instances we may be able to prevent their occurrence.

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HOW TO TEACH AND USE THE MANUAL ALPHABET.

It has fallen in my way during the summer vacation and at other times to make many hearing persons, at their own request, acquainted with the manual alphabet. The practices and principles that have guided me may be of use to others.

I. The elbow should not be stuck out from the side, nor the fore-arm held alow nor aloft, nor either placed in any obtrusive position. The elbow should be held rather near, but yet separated from the side. The fore-arm should make with the upper arm nearly a right angle. The whole position should be nearly that of writing or of holding the reins in riding or driving.

II. The hand should not be flourished about, but kept pretty steadily within a circle of eight or ten inches. An exception to this is when one wishes to emphasize a word by moving the hand in a decided manner perpendicularly up and down a few inches as it forms each letter. Although the hand should be held on the whole steadily, it should not be held stiffly, but move flexibly upon the wrist. The palm should face the person addressed.

III. Having settled these matters, I teach the letter *a*, upon both hands, pointing out its close resemblance, when made by the left hand, to the printed character, and persisting until the learner makes the letter as perfectly as possible. I then teach *b*, noting the resemblance as before. Having taught *b*, I do not go on to *c*, but ask the learner to begin and repeat *a, b*. When he does this without hesitation and with clearness, I teach *c*, then asking him to repeat *a, b, c*. Proceeding in this way with each additional letter, the learner will by the time he gets to "*and*" have made so many repetitions that he will have all the forms at command. Taught in this manner, I have

known two of my "pupils" to be spelling with perfect clearness and considerable speed within thirty minutes; these two, however, were persons of highly disciplined minds, one being an officer in the Navy and the other an instructor in Wellesley College.

IV. In finger-spelling, the great desideratum is clearness. To attain it it is worth while to give any amount of time at first to the correct position of the arm and formation of the letters. The greatest hindrance is that learners are prone to wish to "know it all" and do it all at once. A great help to clearness is to make a slight pause between each word.

My experience is (1) that hearing persons, once able to use the manual alphabet, will always prefer it to writing when meeting a deaf person; (2) they will prefer it to speech when celerity or certainty is demanded, and when the particular matter to be communicated is lengthy or involved; (3) those who prefer to use speech will use the alphabet to give the key-words which the lip-reader fails to catch; and (4) the exceptions to each of the last two classes will be of persons who wish, for any reason, to drill their deaf interlocutor in lip-reading rather than to enjoy a free and clear interchange of ideas with him.

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THE FOURTH YEAR'S WORK.—III.

III. GEOGRAPHY.

OUR work in Geography this year, though very little of it is found in text-books, is of the greatest importance, as it will lay a solid foundation for a practical acquaintance with maps and plans, and serve as a most interesting and instructive language exercise.

Last year we took several walks, of which we kept a

1. *What is the purpose of the study?*
 2. *What are the research questions?*
 3. *What is the significance of the study?*
 4. *What are the limitations of the study?*
 5. *What are the conclusions of the study?*

[illegible][illegible]

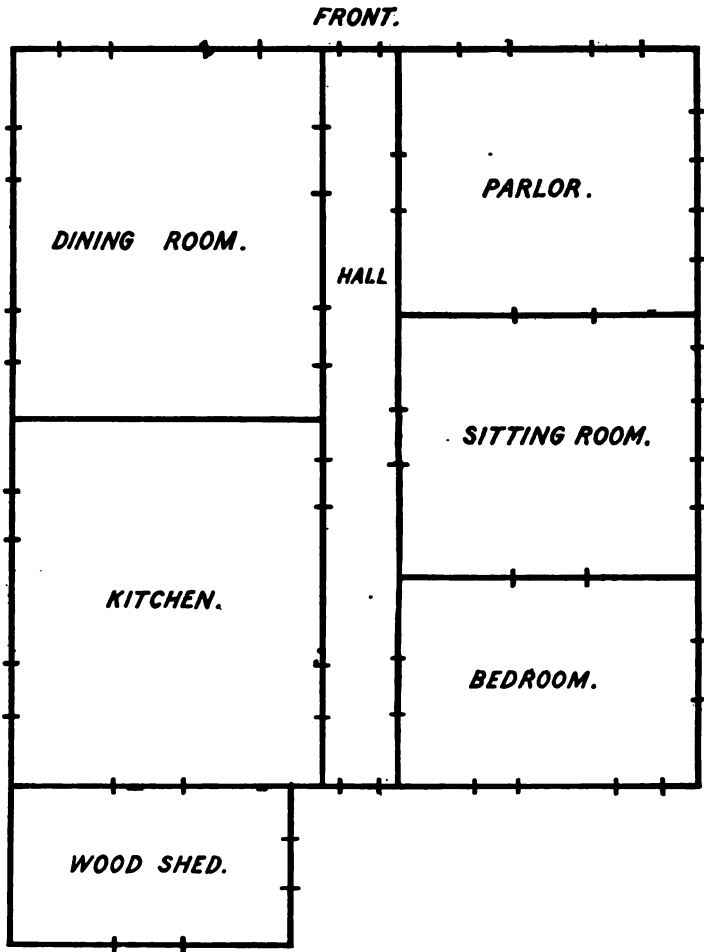
The room immediately back of the parlor, in small houses, usually the sitting-room, and is generally about the same size. You may have to insist that the walls of this room be parallel with those of the parlor, and that there is no need for two walls between the two rooms. Suggest the convenience of a door between the two rooms, and make it by taking out a few bricks. A bay-window may be added to the sitting-room.

Get the children to build the bedroom back of the sitting-room, by the same method of asking questions and making suggestions. Suggest that it may often be very convenient to go from the bedroom to the parlor without going through the sitting-room, and that a hall, with doors from each of the three rooms, would be a great convenience. Build it, and make the front and back doors of the house.

Your pupils may now want to build the dining-room behind the bedroom, and the kitchen back of that. You must tell them that such a way of building would make a very long and ugly hall, and, besides that, there would not be room on your table for the wood-shed, and so you must get them to put these rooms as shown in the plan on the next page.

While all this work is going on, of course you must be talking to your pupils all the time. Try and get them to use their own imagination and judgment, and carry out their ideas about the house as far as you can. You want them deeply interested in it, and if you work their own ideas into it, they will be. The language exercise is more than worth all the time you spend on the whole thing.

All of the building you have done is only one brick high. When you put on the second course of bricks, leave places for the windows. About the time you have finished that, you can discover that you have no more time to spend in house-building that day, and so you propose to mark around the bricks, and put them away till another time. Marking around the bottom row only will not show where the windows are, and you will have



to adopt some conventional way of showing them. The one given is a very good way.

Next day you can have the bricks put back, and go on building the house, but the supply of bricks will give out pretty soon. When it does you may tell them that they can just imagine the house as built and finished, and that it is really more convenient as it is, for if it were covered over, they would knock it down in putting the furniture

into it. This can be done now, and the place of each piece marked on the plan as you put it in. Make the furniture out of paper and blocks, and do not hesitate to call upon the children's imagination to help. A block of wood, especially if it has a little paint on it, will readily take the place of a sofa, table, or even a cooking-stove. I have not marked the furniture on the plan given, as it did not seem necessary.

Hang the finished plan on the wall, and mark it "Plan of our doll's house," or any other name you think best.

You can judge for yourself if it will be necessary to have your pupils build, or start to build, another house from a plan you furnish them. I hardly think it will be; but if you think they have not clearly grasped the idea of a plan, draw a small plan, out of school, and have it built larger. You must show each brick in this plan, in order that the pupils may be able to build it, but you can show each brick in the plan only a quarter of an inch long, and build from the plan with bricks of any size you happen to have. Or if you can get the use of any real bricks out of doors, you can use those. There is nothing that will so lessen the confidence of children in a teacher as for them to get the idea that the teacher does not clearly understand what he is trying to teach; so I advise, for your own sake, that you be very sure that your plan can be built with the bricks. If you do not understand scale-drawing, work the plan out with the bricks yourself before you ask the children to do so.

Our next lesson will be to make a fairly accurate plan of the school-room. In making this we bring in several new ideas, and our pupils make important steps forward. These ideas which we must develop are direction, measuring, and drawing to a scale. Hearing children have these ideas more or less well developed when they come to school, or pick them up outside of the school-room, but it will not do to take it for granted that deaf children can get them without careful teaching.

Put the compass on the table. Show the children that it always points in one direction, and tell them that is north. It is to be hoped that your school-room has two of its walls parallel with the needle. If it has not, I should tell the children that one side was not exactly north, but that it was so nearly so that we would call it "north." Bring the end of your table* parallel with the north end of the room. Write the word "North" in the middle of this end of your table, and also on the wall on that side of the room. Take your pupils to several other places—another school-room, the study-room, the chapel, out of doors, etc., etc., and locate north with the compass for them.

Write "South" on the wall, and at the end of the table opposite "North," and locate south as you did north. Have a pupil stand with his face toward the north and locate east and west. Mark the walls and the sides of the table. Tell them that they can always tell where east is, because the sun rises there, and that if they point east with the right hand, north will be before them. Make each one do this. Tell them that the sun sets in the west and that by pointing to it with their left hand north will be before them. Take them out doors and make each do it, and see by the compass that it is true. Tell them that at noon their shadows point north, and let them actually see that it is so. If you will do this your pupils will never forget it; if you only tell them about it, they are as apt to forget it as any other dry fact that you happen to tell them.

Practice on the expressions: North of —, South of —, etc; and teach the two related expressions at the same time, as:

"Mr. A's room is north of ours."

* At the Michigan School, for this exercise, we use, instead of the table, a very light frame covered with slated cloth. It is in some respects more convenient than a table covered with manilla paper, but is no better.

"Our room is south of Mr. A's."

"The boys' dormitory is west of the study-room."

"The study-room is east of the boys' dormitory."

Ask which is the north wall of the school-room. Draw a line along the north side of your table, and tell them it is to represent the north wall. Ask them how long you must make it. Of course, they cannot tell; neither can you without measuring. Have a stick on which you can measure and mark three or four feet, and mark it off into feet from your foot-rule or yard-stick. Let the pupils begin at one corner, and measure this north wall with the stick, making a mark each time at the end of the stick, and marking on the floor or wall the number of feet, marking the total number in the corner. Propose to measure this same number of feet along the line you have just drawn. Show them that you cannot do this, and ask what is to be done about it. After they fully realize the trouble, lead them out of it. Tell them you have made a large measuring stick for the room, with real true feet on it, and that now you are going to make a little measuring stick for the map. Its feet are not real feet anywhere except on the map; but if they use this little measure on the map, exactly as they used the big measure in the room, everything on the map will be of the right size, when compared with the other things. It will be hard to make them understand this *before you draw your map*, but they will understand it well enough after you finish, if you make them do all the measuring, both on the map and on the real things.

Make a small fac-simile of your measuring rod, on a piece of wood or a strip of card-board. An inch to the foot is a good size, but of course you will have settled what the scale should be, before you began this lesson. Let the pupils see you make this, just as they saw you make the other; then let them measure the line on the table with this, just as they measured the wall with the other, or true measure.

Finally take the paper off the table, and explain that maps are usually made so that the top part is north, and hang it up that way. Show them now a number of real maps, and ask them to point out north, east, the northern part, etc., etc.

Our next step will be to make a plan of the whole floor of the school building, on which our school-room is. How to do this will need very little explanation. You may have to do a little preliminary work yourself in order to get the scale right, and it is of some importance that this scale be different from the one we used before. Usually it will be easier to start with one side of the central hall instead of one side of the building; and of course you will, to save time, see that the line representing this is drawn in the right place on the plan. This plan will probably be on too small a scale to show more than the different rooms, stairways, halls, doors, and windows. Represent these by the usual conventional marks used on plans. It will be well, if you have water-colors handy, to color each room a different color, so that your pupils will realize that color on maps is not connected with the color of the things represented by them.

Drill on this plan of the whole floor in the same way that you did on the plan of the school-room, but you need not make your drill on this so thorough.

After this, I should make a map of the chapel, or some large room in the buildings, and should do so quite rapidly, only consulting the children about what we would show in the plan, and where the things should be put. Use no scale, and do the drawing yourself.

Our next object will be to teach the use of a map. Select some walk near the school, such that you can go out one way and come home another. If there are a number of turns in it, so much the better. Get a map of the neighborhood, and make a tracing (several tracings would be better) of all that part near the walk you intend

to take. Put the scale of miles on these tracings. Draw a red line on your tracings, following the walk you intend to take to the point you have selected, from which you can have a choice of at least two ways to come home. Measure by the scale each quarter of a mile along this red line, and mark these points on the tracings. Give these tracings to the children and explain that the red line on them shows the walk that you are going to take, but that it is no part of the map, and that they will see nothing that it represents. Get the class together at the beginning of the walk, and make them all turn the north on the maps to the true north. Show them, on the map, where they are standing, and point out a few of the real objects that are shown on the map. Ask them which way you must go to follow the red line on the map. Have them point out all the things shown as you come to them. Stop at each of the distance marks you have made, and ask how far you have come. When you reach the point you have decided on as a turning point, stop and have a consultation as to how you will go home. Ask which is the shorter way, and how much shorter it is, and show them how to tell with the scale. Ask why they wish to go one way or the other, and have them look at the map, and tell what they will pass in going the different ways. When you finally decide to go one way or the other, follow the map, just as you did in coming out. If you cross any streams, ask in what direction they flow, which is the right bank, and which the left, where they come from, and where they are going, etc, etc. After you get home you can show them how to find the answers to these questions on a map. Information gained in this way will have a living interest and will last.

Do not imagine that I am going on with this course and advise that you next make a map of the township, and after that one of the County, State, United States, etc. I have no such intention. We have been trying to lay a

foundation on which we can build in future; to get our children to understand clearly what a map is, and how to use it for something more than answering map questions; to give them a correct idea of the length of a mile; and to show the necessity of directions.

IV. DRAWING.

The drawing you should now begin to teach your class should not be such as will in any way interfere with the work of the regular art teacher, but it has a place in every course of instruction, and will greatly help in many of the studies, especially in number-work, and, as you have seen, in geography. A little later, map-drawing should be part of the regular course in geography; and many of the questions in arithmetic can be illustrated and explained better by drawing than in any other way.

After drawing the plans in the beginning of the lessons in geography this year, I should continue to have regular lessons in drawing for a long time. As in many other studies, some apparatus is of great use, especially in saving time; but, if you cannot get it, you can manage to get along with very little. Too much of an outfit, on the other hand, will only distract attention and prevent self-reliance.

If you can possibly get a small drawing-board, a T-square, a triangle, a pair of dividers with pen and pencil points, a foot-rule, a piece of good rubber, and a ruling pen for each member of your class, do so by all means. If these cannot be afforded, a ruler, a drawing-pen, and a triangle for each one, and a couple of dividers, rubbers, and foot-rules for class use, can be made to do. You will have to do most of your measuring with the rule and with paper. Use any kind of drawing-paper you can get, though Whatman's cold-pressed is the best for this work, and the additional cost is very little; but any kind of paper, even manilla, will do. Decide on a size, either the whole sheet as it comes or a half or a quarter of it, and have all the pieces of that size.

If you have drawing-boards and T-squares, show your pupils how to fasten the paper on the drawing-board so that its edges will be parallel with those of the board. If you do not have drawing-boards, get pieces of smooth, soft wood of any kind, and fasten the paper on anywhere. Cracker-box tops make a fair substitute for drawing-boards; and if you have no T-squares, trueness of the edges does not matter. I will take it for granted that you have very few instruments, and give my directions accordingly.

At the start impress upon your pupils very strongly the importance of neatness and accuracy. Tell them that you are going to keep every drawing they make, and that all of them will be made into neat books for them to carry home. The superintendent, too, will see every drawing, and they must be sharp, neat, and clean. Each plate must have a nice border around it, at exactly the same distance from the edge. At first this border may be formed of four moderately heavy straight lines, afterwards of a heavy line and a very fine one, and after that individual taste may be allowed considerable range in the selection of designs for borders. This border may be three-quarters of an inch from the edge of the paper at the top and on the right-hand side, and an inch and a quarter at the bottom and on the left-hand side. You need more room at the bottom, because you will have the name of the plate there; and at the left hand, because the different plates will be fastened together at that end.

Let each child take a piece of paper with a square corner and measure off from the corner each way, first three-quarters of an inch, and then half an inch farther, making an inch and a quarter from the corner, and mark each place with a fine pencil mark.

At first let them write at each of these marks how far it is from the corner. Apply the scrap of paper to the upper left-hand corner of your drawing-paper, so that a mark for an inch and a quarter comes exactly on the left-

hand edge of the paper, and one for three-fourths of an inch (on the other edge of the scrap) falls exactly on the upper edge. Make a fine dot on your drawing-paper exactly at the corner of the scrap.

Apply your marked scrap at the lower left-hand corner, so that the marks for an inch and a quarter come on each edge of the drawing-paper, and make another dot at the corner of the scrap. Between these two dots rule as fine a line as possible, using a hard lead-pencil. Get the points for the other corners in the same way, using the proper distances for each one, and rule the three lines, finishing the border.

The exercises must for some time be very simple. You must show them how the first few are done, but after that only be sure that they know what ought to be drawn, and only help them when you find they cannot get along without it. There will be a great many new words at first, but, as you can show by drawing what they mean, you will not have much trouble in making them understood.

Suppose, for instance, you had this problem: Draw ten vertical (or perpendicular) lines, each two inches long, and a half inch from the next. This sounds very formidable, but go to your black-board and draw a vertical line. Show that it is not horizontal nor inclined. Draw another beside it. Tell them you want them to draw ten lines like those. Each must measure two inches long, and must be just a half inch from the next one. They will easily understand what they are expected to draw, but possibly cannot do it.

Ask them to show you a quarter of an inch, and two inches, on the foot-rule. Tell them that you will do this on your large slate, exactly as they must do it on their paper, except that you will make it larger so that they can see it. You will use "feet" everywhere they must use "inches." The frame of your slate will represent the border lines on their paper. Measure on a piece of

paper any short distance, as a quarter of a foot. Make the children do the same, only, of course, they measure a quarter of an inch. Measure two feet more along the same edge of your paper. At about a quarter of a foot from the left-hand corner of your slate, measure down from the top frame with this piece of paper and make a dot opposite each of the marks. These will be exactly two feet apart. Rule a line between the two. It will be the first of the required lines.

To get the others, and at the right distances apart, you could let them measure along the top border line nine quarter-inches, and then measure down from each of these, but this would not be very accurate, and would be apt to mar the border line. A better way is: From any point of the top line that you are sure is more than nine quarter-inches from the first point, measure down again with the same measure, and mark the two points as you did before. By a very faint pencil line, join each of the points thus found with the corresponding end of the first line. Set off along these two lines, either from a ruler laid beside each or from a marked piece of paper, nine quarter-inches. Join these points by finely ruled pencil lines and you have the ten lines required. Have these light pencil lines ruled over with heavy black ink lines, but insist on having them drawn at first light and fine. Have the construction lines ruled lightly in red ink in this and all other drawings.

It will hardly be necessary to describe the whole course of work minutely. You can advance, through various drawings of lines in different positions, squares, triangles, objects in straight lines showing only one surface and drawn from the object itself by measurement, either full size or on a reduced scale, until by the end of the year you have your pupils ready to begin to make accurate drawings of easy objects, from measurements taken by themselves, to a scale made by themselves.

With dividers you can add much to the variety and usefulness of your work by adding circles and parts of circles; but unless you do have them, such work can hardly be done in a satisfactory way.

This short course will teach your class many things that will be of great use to them, and will give them ideas which will continue to develop, even if after this they never have a lesson in mechanical drawing. What you have taught them will be a great help in teaching arithmetic and fractions during the next year or two.

V. MANNERS AND MORALS.

By this time, I sincerely trust that you have formed the character of your pupils so well that they give you very little trouble; and that, as a rule, all their impulses are right. I can give you no farther special directions. I beg that you will be on your guard and feel your responsibility in this matter. Use patience, and love, and kind words with those who are not what you would have them. Nine times out of ten, a deaf child owes his moral character more to the teacher who taught him during the first few years of his life in school than to all other influences combined. Bear this constantly in mind. Think of the responsibility that rests upon you. Really and truly strive to be your little deaf brother's keeper in the best and fullest sense.

FRANCIS DEVEREUX CLARKE,
Superintendent of the Michigan School, Flint, Michigan.

MISS HELEN ADAMS KELLER'S FIRST YEAR OF COLLEGE PREPARATORY WORK.

THE first year of college preparatory work done by Miss Helen Adams Keller closed in June, 1897. A brief review of it will be of interest to all who have at heart the mental cultivation of the deaf or the blind. In response to a request from the editor of the *Century* magazine, I prepared for him a statement in brief of the beginning of the year of which I purpose now to present a more complete summary. This was published in January, 1897.

In September, 1896, Miss Keller entered "The Cambridge School" for girls, as a candidate for college preparation. She was accompanied by her teacher, Miss Anne M. Sullivan, the plan being to have both in every class, Miss Sullivan being the interpreter to Helen of the instruction of the respective teachers. For the first time in her life, Helen was to live in the constant society of seeing and hearing persons, and to be taught in classes of normal pupils, by instructors who had no experience in teaching the deaf or the blind. Her companionship, not alone in school-time but in the hours at home, was to be supplied by normal persons. I had, myself, no experience in work with any but the ordinary seeing and hearing pupils, and I was unable to converse with Helen, except so far as I did it by allowing her to talk with her mouth and to be embarrassed by the difficulty of taking my words from my lips with her fingers.

Though Helen had not before been in a course preparatory to college, she had been taught much English, and it was evident that she needed little more instruction in that direction beyond the reading and critical study of the books specially assigned by the colleges for that purpose for the year 1897. She had also made good progress in French, and it was thought that some review, united with

drill in reading French, would suffice to fit her for the examination in that language. Two years previous to her coming to Cambridge, Helen had received instruction in Latin, amounting, as Miss Sullivan estimated, to one-half of a year's drill in this School. This instruction proved to have been of the best quality, but it was felt that the lapse of time must have left the impressions somewhat dim in Miss Keller's mind. German was a subject in which Helen proved uncommonly facile, and we were sure that a good year's work would fit her for both the "elementary" and the "advanced" examinations. All the expectations formed at the beginning of the year were more than fulfilled, as we shall see.

It was thought probable that at the end of the year Miss Keller would be able to pass the examinations set for admission to Harvard College, in English, History, French, and Elementary and Advanced German, making "seven hours," according to the schedule of the College. This, if accomplished, would constitute the "preliminary examination," and she would be permitted to complete the work at some other time. The usual method of admission to Harvard College requires the candidate to pass in sixteen hours, twelve being called "elementary" and four "advanced." At least five hours must be passed at a time to make any record. To prepare for the seven hours proposed would require pretty hard study, but I was willing that Helen should try it, because she seemed to be so nearly fitted that it would be useless to postpone the work and thus, perhaps, add to the burden of the following year. Besides, these examinations once off, the way would be plain for more leisurely work in the years that were to follow. While preparation for these tests was going on, Helen was to study arithmetic, in order to be able to begin algebra the next year. Mathematics is not her favorite study, and though she does good work in arithmetic, she does not excel there, as she does in language-subjects.

One of the questions that demanded attention at an early stage was, Who shall conduct the examinations? At Harvard, the candidates are numbered, and to those who determine the value of their work they are known by numbers only. It was, of course, impossible to conceal the fact that Helen's papers were written by her, because she was obliged to use a type-writer, and all other candidates would use pen or pencil. Some one would be obliged to serve as eyes for Miss Keller—some one who could testify that she was the person who actually produced the written paper. Miss Sullivan, naturally, felt unwilling to act in this capacity. Any one able to use the manual alphabet might read the papers to her, but it was evident that much more than that was necessary. It finally became plain to all that I was the proper person. As a member of the corporation of Radcliffe College, familiar with Harvard examinations for many years, I should be at home in all details. I was, as has been said, unable to use the manual alphabet. It seemed improbable that I could master it sufficiently to be able to put Helen in the position of a seeing candidate, but I determined to make the effort. I could be satisfied with no mere practice; I wanted to do actual work with Helen. I therefore undertook to give her a portion of her work in English—to read to her examination papers in French, German, etc., as might be necessary. At best it would be impossible for me, or, indeed, for any one, to release Helen from the handicap which embarrassed her, for all the other candidates were able to read and reread their papers, to read them in parts, and to read over all that they wrote as they progressed. It would not be practicable for Helen to have her examination in the room with the other candidates, because her type-writer would interrupt those around her. The whole embarrassment was overcome by a vote of the council, which placed me in charge of Helen's examination, gave me an allowance of time for my imperfect read-

ing, and permitted me to select a quiet room for the ordeal. At about Christmastide I began to read Shakespeare and other authors to Helen, she constantly complimenting me upon the good rate of my progress !

All difficulties in the general work vanished as we went on. The teacher of German became interested and learned to read to Helen with her hand. Others did the same. Though Miss Sullivan found herself fully occupied, as usual, she had helpers in reading the great amount that Helen needed in English, French, and German. We had, however, difficulty in getting books made promptly enough, in spite of the willingness of friends in London, in Philadelphia, and elsewhere to hasten all such work. The Perkins Institution lent us some books, but there were others that it was necessary to have put into Braille specially for our use. The avidity with which Helen read whatever was placed within her range kept her always ahead of the respective lessons. School girls sometimes study as though it were a "task," as indeed our fathers called it, but Helen never. With her a new text-book was a fresh and delightful field for investigation. Difficulties were merely new heights to be scaled. The exhilaration of overcoming obstacles kept this school-girl as much interested as another might be in achieving conquest in a game of golf or tennis.

The actual school work during the year showed little difference between the treatment of Helen and the other pupils. Miss Sullivan sat at Helen's side in the classes, interpreting to her with infinite patience the instruction of every teacher. In study-hours Miss Sullivan's labors were even more arduous, for she was obliged to read everything that Helen had to learn, excepting what was prepared in Braille ; she searched the lexicons and encyclopædias, and gave Helen the benefit of it all. When Helen went home Miss Sullivan went with her, and it was hers to satisfy the busy, unintermitting demands of the

intensely active brain, for, though others gladly helped, there were many matters which could be treated only by the one teacher who had awakened the activity and had followed its development from the first. Now it was a German grammar which had to be read, now a French story, and then some passage from Cæsar's Commentaries. It looked like drudgery, and drudgery it would certainly have been had not love shed its benign influence over all, lightening each step and turning hardship into pleasure.

Space will not permit me to dwell at large on the steps of progress. It was in reading and studying with Helen that my insight of her mind became the clearest. I read Shakespeare with her, and she showed the greatest pleasure in the light and amusing touches in "As You Like It," as well as in the serious passages of "King Henry V." We took up Burke's celebrated speech on Conciliation with the Colonies, and every point made an impression. The political bearing of the arguments, the justice or injustice of this or that, the history of the times, the characters of the actors, the meaning of the words and the peculiarities of style, all came under review, whether I wished it or not, by the force of Helen's interest.

Without a break, we took up Macaulay's Essay on Samuel Johnson, and the interest flagged. There was no such stimulus in the style as I had noticed in reading Burke. There was sympathy for the poor literary man, there was amusement at his strange life, there was rejoicing at every one of his successes, and there was appreciation for the fluent style of Macaulay; but everything was easy. There were few words to be explained, no difficulties to be overcome. I was sorry to see the lack of interest, and suddenly one day I stopped and instituted a comparison of the style of Burke and Macaulay. At once the former interest returned. There was now something to do which was worthy of doing. The mind was obliged

to exert itself, and so long as this was the case Helen was absorbed.

While reading Burke, I made a memorandum of certain words that Helen did not understand, and of others which she had no difficulty with. Here are some that she did not understand :

paper government	fertile	fomented	juridical
pruriency	ballast	excrescence	vouchers
inspector-general	minima	commodities	equinoctial
complexion	predilection	chicane	inheres
criterion	bias	theorem	corollaries
coeval	dissidence	smattering	animadversion
mercurial	litigious	pounces	truck
operose	abrogated	concussion	inconvenient
radical	prosecute	comptroller	overt
indictment	pedantic	tantamount	exquisite
preposterous	heterogeneous	ill-husbandry	marches
tampering	paradoxically	sterling	clandestine
subversion	consequential	"cord of a man"	chimerical
contingent	quantum	composition	

Here are some of the words that Helen had no difficulty with :

policy	mace	captivated	capital
impunity	shoots	aversion <i>from</i>	mediately
latitude	numerous	smartness	topped
lair	dragooning	inquisition	nice
magazines	civility	impositions	futility
competence	biennially	questioned	congruity
immunity	illation	acquiesces	

It is unnecessary to say that many of these words are used by Burke in senses quite different from those now in vogue.

When we encountered "heterogeneous," Helen said, "I have never seen that word, but it is evidently of Greek origin," though she had not studied Greek. When Burke said that Parliament had disarmed Wales by statute, and now proposed to disarm America by "an instruction," Helen quietly remarked, "Rather polite, was it not?" When I explained the meaning of "chicane," and showed her the particular trick of the New Englanders by which

they nullified an act of Parliament, Helen exclaimed at once, "That was the way in which the case was decided in 'The Merchant of Venice!'" It was a legal quibble that Bellario taught Portia." This leads me to remark again, as I have done before, in print, I think, that the more I study the action of Helen's mind, the more emphatic becomes my conviction that its logical action is its most pronounced and peculiar trait. I took occasion to test her verbal memory in connection with the list of words that she had not understood. I went over them just before the June examinations to see how much of the explanations that had been given her she could recall. The study of Burke had extended from the close of February to the first of April. It was now about the first of June. Many of the words were still not comprehended fully, though they had been at the time of the reading in April and March. The explanation was repeated.

The Harvard examinations were held from the twenty-ninth of June to the third of July. As that time approached, I practised Helen on examination-papers of previous years in French, German, History, and Latin. Latin was not one of the subjects that we had intended to permit Helen to be examined in. She had not studied the subject one-half so long as normal pupils are accustomed to study it. I was surprised, as the close of the work of the year approached, to have the teacher of Latin tell me that Helen was as well fitted to take the admission examination in her subject as any of the candidates who had been through the usual course. I hesitated, fearful at first lest the warm feeling that I knew had grown up between Helen and her teachers might have led to a too partial estimate of the pupil's ability. However, it was shown to me that no doubt existed, and I gave my consent, thus adding two hours to the number that we had at first planned, making nine for these "preliminaries," and leaving but seven hours for the "finals," which were to come at some future year.

So much for the interesting process of preparing a young

girl blind and deaf for the entrance examinations of Harvard College. It only remains to summarize the result. Examinations are not a perfect test, but my experience of many years, during which hundreds of girls have passed under my personal view, has satisfied me that among the great number who are examined there are very few who are not, on the whole, properly weighed and classified. It is usually the nervous, anxious candidate who fails when she is prepared ; and occasionally, on the other hand, a cool, collected girl will pass though she is not perfectly fitted. There was little anxiety about the result in the present instance. Helen was able to marshal her mental forces and to bring them to bear upon the subject before her much better than the average girl. It is, doubtless, a wonder that she could be fitted at all ; but after we have overcome our surprise at that, we find no difficulty in believing that she is able to accomplish any mental feat that is possible to woman. The examination was to be a test, not only of the ability of Miss Keller, but also of the processes designed and carried out for years by Miss Sullivan.

It happened that Helen's most difficult examination was the first on the list. Advanced German came on Tuesday, June 29th, from nine to eleven o'clock. I had arranged to have a room where we could be free from all interruptions, and I had posted at the door a man who had orders not to admit any one except officers of Harvard or Radcliffe College. The papers were given out at nine o'clock at Harvard College, and were brought to me under seal. Helen sat at her type-writer, and I took a position at her side, so that my right hand could grasp hers. We had often done the same thing before, but no previous effort had been quite like this one, and we both were conscious of it. On other occasions we had tried to see if we could cope with the paper ; now we were actually to write something to be submitted to Harvard examiners as a final test. It was plain to me that Helen felt

this. I read the entire paper through at first, and then I read it sentence by sentence. Helen repeated the words with her voice as my hands made the signs, because I was determined that she should not be prejudiced by any failure of mine to present to her mind the paper as it was printed, and, as I could not read the manual alphabet, there was no way to make sure of this except by having her repeat the words that I spelled.

The paper was not an easy one. It was evident that Helen felt that. Her brow was knit; her fingers seemed to want to clutch an idea; perspiration came; but with regularity the type-writer spelled out the English of the German text. Helen forged ahead, and I anxiously kept her supplied with new sentences to translate. By ten forty-one she had put into English all of the German from the German books that she had read. Then she took up the English to be translated into German. At eleven five this, too, had been done. Next there was a passage from a book that Helen had never seen. This was completed at eleven forty-four. I then read to Helen what she had written, so far as the time permitted, and she dictated such changes as she thought necessary. These I interlined. It then went to the examiners, with a certificate from me that it was the sole and unaided work of candidate number 233.

There was no ordeal on Wednesday, but at nine on Thursday the examination in Latin began. I read the paper just as I had read that in German. It was not easy, but it was plain that it did not present the difficulties that the German paper had, and Helen was very cool. She was confident. The work went steadily forward, and was duly completed and sent to the College as before. On Friday, July 2, at a little before noon, we began the one-hour paper on the history of Greece and Rome, and it was followed, with a slight intermission, by the two-hour paper on English. These were uneventful. They were play for Helen, though naturally there were matters in

the history paper of which she had never heard. She could have written indefinitely on both of these papers. We had spent weeks in the critical study of Burke's speech, but not a question was based on it. We had thought that DeFoe's journal of the plague was too horrible to trouble Helen with, and but a few pages had been read to her. She found some questions on it, however, and she was able to write satisfactorily on the subject.

On Saturday there was one hour for Elementary French, and one for Elementary German. Both of these were easy, though the German is more to Helen's taste than the French. While we were going through this German paper, there was a ring at the door, and Professor Schilling was announced. He had come to let me know that Helen had been successful in her advanced German, the paper being pronounced excellent. It was very kind of the Professor to let me know this, for it gave Helen her first encouragement, and she went off for her summer vacation in an hour with a lighter heart, though I believe she had no doubts at any time.

Since then I have heard from all of the examinations. She was successful in every subject and took "honors" in English and German. I think that I may say that no candidate in Harvard or Radcliffe College was graded higher than Helen in English. The result is remarkable, especially when we consider that Helen has been studying on strictly college preparatory lines for one year only. She had had long and careful instruction, it is true, and she had had always the loving ministrations of Miss Sullivan, in addition to the inestimable advantage of a concentration that the rest of us never know. No man or woman has ever in my experience got ready for these examinations in so brief a time. How has it been accomplished? By a union of patience, determination, and affection, with the foundation of an uncommon brain.

ARTHUR GILMAN,

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SPEECH AND GESTURES.

AT a time when the use of signs, or gestures, is considered in many quarters as *passé* and detrimental as an instrument in the education of deaf children, it is suggestive to note the extensive part which gestures play in the daily intercourse of people who are in the full possession of all their senses. It would appear that there is a very close relation between speech and gestures, and the inference naturally suggests itself whether the use of gestures is a real or merely an imaginary hindrance to the acquisition of speech by the deaf child. Anything tending to shed a ray of light on such a debatable point is of value to the profession, and especially so to that portion of it which, in seeking for the best available means for reaching definite ends, is anxious to profit by all hints and helps that may be of assistance in the general education of deaf children. There are still to be found a good many able teachers who hold fast to the principles, so ably enunciated by the old masters, that signs are ever an available means for reproducing the events and feelings which they describe, yet are to be employed with discrimination, and for the acquisition of verbal language should give way to manual spelling. This doctrine was held by the most prominent of the early American teachers, and, like most of their deductions, has withstood the mutabilities of time.

The perplexities met with in an attempt to discourage the use of gestures among new pupils are emphasized in schools, situated in large cities, receiving the children of a mixed population. This is singularly true of deaf children of Russian, Polish, and Italian parentage, in whom gestures seem impregnated almost beyond hope of eradication. Were such children to master the most correct forms of the English language, it would be of no benefit as a means of direct communication with their immediate

relatives, who know little or no English, while they are past masters in the use of the gesture-language. However, this is no reason why the children should not be prepared to use and understand the language of the country of which they are being fitted for citizenship, but rather an additional argument for their mastery of verbal language.

The purpose of these remarks is not to give an exposition of the power of signs with the deaf, but to introduce a non-professional theory, presenting several new thoughts with respect to the general utility of gestures as a Volapuk. It appears in a highly interesting article by Ernest Ingersoll, in the *New York Evening Post* of July 10, 1897, in reference to the gestures used by the Italian colony in New York, and is substantially as follows :

"Far from silent, indeed, are these Italians. Their tongues rattle with that haste which sounds so excessive in any foreign language ; yet even this fluency seems inadequate to their purpose, for every talker is moving shoulders, arms, fingers, and face as he speaks, in a manner that doubles the force and the amount of what he says.

"We, unsentimental, self-conscious Northerners, afraid to acknowledge an emotion and studious to cloak our feelings, have repressed almost all of even the most natural gesticulations, but the Italian is not proud of an artificial stoicism. He neither understands nor likes our immobility ; and when the Teuton scornfully calls his Latin brother *mercurial*, the latter retorts, *icy* !

"Philosophers have argued that, because among most savages the language of gesture is extensive and useful, gesticulation in speech, or in lieu of speech, is a concomitant and sign of feeble intellectual power, and that civilization must needs leave it behind. That this is true, if at all, only in a limited sense might be shown ; but, whatever the hypothesis, the fact remains that among de-

scendants of the oldest and highest civilization sign-language has survived, and is still in active and effective use.

"Nowhere is this more the case than in Sicily and in and about Naples. The aborigines of Sicily are said to have been peculiarly adept in a gesture-language, rivalling, apparently, our Indians, who can communicate a very wide range of ideas by that means alone, as I have many times witnessed. This island early fell under the dominion of colonies of Greeks, of whom the later Romans noted, among other peculiarities, extraordinary facility in gesticulation. It is not to be wondered at, therefore, if, as the story goes, the tyrant Dionysius was unable to prevent public comment on his behavior by prohibiting the Sicilians from meeting, or even holding conversation, since they were able to communicate news and thoughts wholly by silent signs.

"These repressive measures, however, led to the cultivation of this method of voiceless speech, and to them is due the preservation of gesture-language among these islanders more than elsewhere in Europe—a practice likely to be long perpetuated.

"How complete is this language of signs for the expression of information can be shown by a few instances.*

"Nothing in the ordinary affairs of life seems to be beyond expression by these people by means of grimaces and hand-movements. Some signs are almost self-evident, as the pretence of eating by carrying the joined thumb and forefinger to the mouth repeatedly, making the idea more specific, if they please, by imitating the motions peculiar to some particular food, as macaroni, where the long strings must be lifted above the open lips and dropped in. Most signs, however, have become too conventional-

* The writer here and elsewhere in the article gives some examples of the extent to which the sign-language is used and understood by hearing people in southern Italy. As the same instances have already been published in previous volumes of the *Annals* (xi, 124 ; xx, 133) they are now omitted.—E. A. F.

ized to be clear until explained. How could an American lady, finding a Neapolitan beggar regarding her with a smile, while he held his chin between his thumb and fore-finger, understand that he was complimenting her beauty (actually by indicating her fatness) of face?

"A deaf-mute in one of our colleges would readily comprehend a large number of the gestures; and a Ute or Sioux Indian would find himself answering many familiar signs, as when he should express a forcible negative by violently thrusting forward his fingers after swiftly gathering them into a point under his chin. There is nothing in common with spelling out of words by letters formed according to a finger-code, such as deaf-mutes are taught. These signs are not letters and words, but pictures. * * *

"Ancient and mediæval art can be made, in this light, to reveal subtleties of meaning otherwise unsuspected. In the wall-paintings of Pompeii, in the story-telling mosaics and decorations of old Rome, and in the artistic embellishments of ancient vases, many and many of the figures are intended by their attitudes, or by the position of hands and fingers, to express far more than appears to the modern, uneducated eye. The same intensity of meaning was lent to the characters in many of the compositions of the Raphaelitic and earlier painters, always illustrative in their intention; and by this means the paintings (and statuary) conveyed far more to the Italians of their own time, if not of this, than men of other nations see in them.

"Moreover, it is interesting to note that a study of these signs, still in daily use among the natives of southern Italy, and carried with them to America (for most of our Italian immigrants come from Sicily and the southernmost provinces), and a comparison of them with such signs as can be gathered from the artistic and literary relics of the ancient Greeks, Phœnicians, and Egyptians, must throw

strong light upon the hieroglyphics of the Nile monuments. This and other facts strengthen the theory that these and most other ancient pictographs are (or were originally) attempts to depict the speaking gestures everybody then used."

THOMAS FRANCIS FOX,
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A RETROSPECT.

WHEN, twenty-five years ago, I, flushed with hope, made my *début* as a teacher of the deaf (I commenced very young), a sentiment pressed itself upon me as to how lucky the children confided to the new master would be. Ignorance was to vanish as night before the rising sun. The lights of the profession had but dimly illuminated the great arena wherein the battle of a century on behalf of the deaf was being fought. I would strike the blow that would free the captive. Partial advantages had indeed been gained, but triumph was now to be made complete. Youth and courage were on my side, and what I lacked in experience I made up in confident enthusiasm. I had read of the difficulties in the way of the bravest attack, and of that Gibraltar of the deaf—language; but I would so direct my forces that the foe should be compelled to yield, and the day be won. The first encounter did not answer my expectation, nor the second. Every morning I would muster fresh troops, disposing them, as I believed, in such a way as surely to cut off the enemy's retreat. Their superior numbers, however, baffled my every plan. The undertaking was proving more serious than at first conceived. I took counsel of older heads, men well up in strategy. They, indeed, had long been waging war and had dismantled many a hostile fort, yet much territory still remained to be conquered.

In giving instruction, I wondered why, having written as plainly as ever it was possible "Christopher Columbus" and "United States," I should the next day be confronted by "British Columbus" and "Untied States," and that such questions as (1) "What brought you here?" (2) "What do birds live on?" and (3) "What did you think when you saw the man under the influence of liquor?" should elicit such literal answers as (1) "The cars," (2) "Fences," (3) "He took too much." Napoleon with his sword by his side and Homer in his pocket claimed he could carve his way through the world. Why could not I, with the *Annals* before me and the "sword of the spirit," attain the end for which others had learned "to labor and to wait"? I trudged on. The longer I taught, the more impressed I became with the vastness of the work, the sublimity of its accomplishment. Was it to be wondered that a child deaf from infancy would, even after years of painful efforts, falter on the steep road of accurate expression? How many of us, blessed though we be with every faculty, feel totally at ease on the same precipitous route? Was I not expecting too much from these intelligent but sadly handicapped children? I began to make haste slowly, taking nothing for granted. The same errors, the same difficulties, the same relative disappointments were met with elsewhere, although the cause, as we knew, was in the ablest of hands. It is "not in mortals to command success." Yet does not continual dropping wear the stone? and will not earnest action, properly directed, in the long run tell? The Arab who gets short of water uncereemoniously lays himself down to die. This is simple if not commendable. But the method has been bettered. A young engineer who recently was crossing the sands of Egypt, contrary to previous notion, conceived the idea of boring for water, which he did, with the result that he saw his determination fully rewarded. There are in the classroom occasional arid spots where no amount of labor ap-

pears to avail ; still the oasis of the bright and brave who form the majority should ever be an inspiring sight, a source of constant encouragement and fresh delight.

Few things bring a teacher more pleasure than successful attempts by his pupils at original sentence building. To vanquish without peril is to triumph without honor ! He is learned who has mastered the idiom of his country, and he under whom the feat is achieved by the deaf learner has a claim upon that country's gratitude and admiration. Amphion built Thebes by the sound of his lyre. Had he lived in our day, he might have found a little more active service in one of our many institutions. The edifice we rear is of a kind that calls for the exercise of man's noblest attributes. Knowledge is the blossom of thought. There cannot be success without thinking, and to make a child think in our vernacular is an achievement in itself. It is the absence of this power that causes the entanglement in writing we too often have to deplore. But how can you secure this ability to reason ? We have the answer in the terse phrase "*Fabricando fit faber.*" All of a mother's endearing talk to her infant child would at first seem puerile and meaningless, and yet how quickly the uninitiated ear opens to the caressing words and the little stranger is made to understand ! "*Vade et fac similiter.*" Spell, question, correct, turn, add, vary, review, interest, emphasize, never tiring, never surrendering, but keeping up the fire until at last your skill and pluck and tact shall have torn down the Malakoff of countless "deaf-mutisms" and battered an entrance into the realm of connected thought and accurate diction.

I remember once believing that when a point had been explained thoroughly, it were loss of time to refer to it again, but

I stopped my Pegasus
To start on a new basis,

being convinced that the teacher who will take two days in the week reviewing the work gone over the other three

will, by the end of the term, have gone further than he who, in his haste, keeps pushing on and on. Better a rood of land your own than acres of uncertain possession, the standard being not so much what you claim to have taught as what the scholar can command and put to practical use.

A wide-awake teacher will not have somnolent pupils. I have seen children act and write as if their sole business consisted in making errors for you to correct. They might seem attentive enough, but ask them anything, and they appear to wake as from a dream. It costs an effort to grasp an idea, and that effort they will not put forth. All such require rousing before any progress can be made, and renewed ardor on the part of the instructor is the price. A few pertinent questions at the psychological moment has a wonderful effect upon drowsiness. It is an art to keep a class occupied and interested, and without fuss or friction, to secure, not parrot-like knowledge, but an intelligent co-operation and fruitful results. If those who think that teaching the deaf is a sinecure which anybody can fill, and where the happy band only have to draw their salary, would take charge of a class for a year, see what headway they make and how they feel, they might then have their eyes opened. I have aged in the service and look upon the work as the proudest a man of heart and feeling can be engaged in. The soul and mind and life and character of a fellow-man, of an immortal being, are to be moulded, not for time alone, but for eternity. The grave task falls to your lot. You are unfit for it if you fail to realize its sacredness. The position, therefore, is not only laborious, but eminently responsible, and the names of those through whose untiring efforts these interesting children have been raised from their original sad condition into that higher sphere of enlightenment and usefulness which is their boast may well fill a glorious page in the annals of a benevolent, grateful

nation. Then, speed on the brave cause. Let every man in the ranks be worthy of his vocation. The command is as gallant and true as the aim is heroic and enviable. Our young continent, like a stalwart son with a good heart, has been greeting its venerable sire, the old world, with a message of friendly regard, and proffering a respectful support in all that may lead to the advancement of the deaf in both hemispheres. Union is strength. May sympathy interweave our several efforts and Heaven vouchsafe a blessing!

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PARAGRAPHS.—VI.*

Kite-flying.—As kite-flying is being practised by so many of our learned professors of the present day, a simple teacher may be pardoned a paragraph on the subject. It was a common, every-day kite, at first. How to make it, and of what material? Paper could be easily procured, but where did they get their string, and who made the paste? Some had used mucilage, and this led us to finding out how that was made, and what was used to prevent its moulding. Then the shape was described, where the braces should be put, how the string should be fastened, and the length of tail determined. Thus far the boys had the floor, being better authorities on the subject than the teacher, or the girls, who evidently considered it a trifle beneath their notice. They roused up, however, at the story of Franklin and his wonderful deeds. Then followed a description of the scientific "box-kite," and the "tandem"—one kite following another in tandem fashion—also the method of showing the election returns by sending various colored kites flying upward from the tall tower

* Continued from the April number of the *Annals*, page 159.

square hole. Witness this: "Henry has a new bat and ball." Correct apparently, but, to show my interest, I said, "Has he?" and the reply came, "No! his mother will bought them," and I found occupation for the next five minutes or more. Here is another: "Tom told me he tried to cut the lawn. I asked him if the grass was short." A faint suspicion that the too common interchange of "asked" and "told" might have been made led me to question this grammatically correct statement, and I found that in reality Tom had *asked* the speaker if he wished to try the lawn-mower. The other said yes, tried it, found it too much work, and asked if the grass was not short enough. Caution! Caution! Accept nothing unless tried and proved. This can be done without the pupil knowing that you are testing him, for who likes to have each statement made turned over and over? Correct grammatical construction is not the first point to be aimed at, but rather a construction that will convey exactly the thing the speaker wishes told. This is far more valuable for future use than the most rhetorical sentence, if expressing something they do not intend. Another caution is in regard to definitions, to which we have alluded before, but which, like weeds, are continually cropping up in some shape or other. A teacher may be often led astray by a pupil accepting her statements without argument. Blessed is persistence on the child's part if not carried too far. Here is a late question of a pupil from whom I have quoted before: "Please tell me the difference between *size* and *number*." "Size answers the question, How *large*?' and number, How *many*?" "Yes! but sometimes the man says to me, 'What size shoe do you wear?'" and sometimes, 'What number shoe?' What is the difference?" Language is a far more serious problem than life to this puzzling girl of sixteen, and occupies a larger portion of her thoughts.

In replying to questions, let your answers be as concise

as possible, with due regard to lucidity. I have found that an over-elaborated reply is often forgotten when a crisp, snappy one remains with the pupils. "What is the difference between 'to study' and 'to learn'?" a semi-mute asked the other day. "The same difference that there is between cooking your food and eating it," was the answer. She laughed and said, "Oh! I see," and proceeded to show that she really did see the difference. Single words, I have told them, are like colors. We may have two pieces of ribbon, one a pretty blue, apparently, until placed beside the other, when it seems to have become green. It is thus with words; "once" implies a single action, "at once" means immediately, while "once upon a time" leads us back to the distant days and realm of fairy-land.*

Scrap-books.—Not the "pasty" kind, which are not only disagreeable to make, but too often, like a sunken vessel with rich cargo, require both time and a skilled diver to rescue the precious freight from the depths. Even Mark Twain's books, with their already gummed columns, must come under the ban. Instead of these, take manilla paper, and make a dozen or more large envelopes eight by twelve inches, or even larger, if you have a drawer to hold them. Have the flaps rather pointed, and cut a small slit in the envelope, into which the point may be slipped. Place the envelopes one on top of the other, with the openings

* On the same page of my note-book with the foregoing I find the following, which, though totally irrelevant to the matter in hand, I chronicle for the sake of the smile it will bring. I had been reading to one of the classes a tale of the early settlers, describing a journey in winter, during which the party had waded several streams and finally caught a floating canoe and in it crossed the main river. One of the young folks understood all from my lips but the one word "canoe." She puzzled for a while but made no headway. Thinking to suggest it, I said, "What do you suppose they caught?" "I don't know." "Well, think!" "I should *think* they caught a cold." "Oh!" "Well! you said they had been wading through freezing water."

toward the right hand, and the flaps uppermost. Then, at the left side, insert between each one several narrow strips of paper, to make the back sufficiently broad to allow for the filling of the envelopes. Fasten them firmly together and put on stiff covers, or one of the many patent binders now on the market. This idea was gained from "Breed's Portfolio Scrap-book," which is, perhaps, a little high in price and rather small in surface measurement for a teacher's every-day demands, though exceedingly desirable for dainty clippings. Having prepared your book, label the envelopes "Politics," "Pictures," "Signals," "Maps," or what-not, and you are ready for all the flotsam that may drift your way. As the various clippings are put in, write their special subjects on the outside of the envelope, and finally index the whole.

(a) "Politics!" you say. Yes; why not? I have found myself more than once deep in a political bog when I fancied I was standing on solid ground. A pupil asks, "What kind of a college is an *Electoral* College?" with a strong deprecatory accent on the descriptive word. You have a vague or a clear idea, as the case may be, but, either way, you say, with Hamlet, "We must speak by the card or equivocation will undo us," and a search into an encyclopædia follows, notes are taken, and editorials on the same subject are clipped from some newspaper. The question is answered, and the material is slipped into your "Political" envelope for future reference.

(b) "Pictures!" No matter how liberally your closet may be supplied, or how fully your wall space utilized, there are still a hundred and one occasions when some tiny picture from your envelope collection can be taken out and passed from hand to hand, without the lifting of a weighty book, and which will just supply your need. The illustrated catalogues sent out by book publishers at Christmas time, and the advertising pages in the back of magazines, are grand reservoirs from which to draw sup-

plies. "Pear's Soap," for instance, has illustrated more than one lesson on other subjects than cleanliness, while a very pretty little engraving of a "village smithy," though advertising a patent horseshoe, gave just the needed touch to a lesson in literature. Children in higher grades may have their attention drawn to the difference between pictures made by an author and an artist on the same subject, and questions asked as to which conveys the most vivid impression, the pen or the brush. In the one a life may be portrayed—in the other but an instant of time.

(c) Signals. Good lessons can be given on the various ways of signalling at sea. The little leaflets advertising the "Century" magazine for March had the signal-flags of Nelson's famous message. Never mind iconoclastic theories that it was never sent; I and mine still hold fast to the idea that, if it was not, it ought to have been, and we go on believing, and the leaflets were slipped into the envelope. Then the Weather Bureau published cards containing *its* flag signals, and a magazine gave an account, months ago, of the meanings of train-whistlings. All these we gathered in, copying and condensing the magazine article, for on no account will we spoil a book. There are too many hungry minds needing them, and we must pass them on to others. After these came the heliographic messages flashing from the mountain-tops, and the glorious bugle notes through the valleys, and even then our lessons were not over, for what are salutes but signals? And as the guns boom from the man-of-war, we count their thunders and know something of their cause, for Uncle Sam has not only ordained the number that shall be fired, but also the intervals of time between the firing. The grand "National Salute" is one gun for each State in the Union. Think of that, ye voters and lovers of noise, and let our pleading Territorial sisters enter the ranks. Then our President has twenty-one guns fired in his honor, and the same number is given to the

sovereign or chief magistrate of any other country. There are many surmises, says Malcolm Townsend, as to why twenty-one was the number chosen. Some say that the United States wished to signify to the mother-country that her child had become of age, and give as proof that the gun of 1776 adds up to twenty-one. $1 + 7 + 7 + 6 = 21$.

(d) Maps! "What do we need of them other than those furnished by our school authorities?" Well, those who are fond of using the microscope are very apt to follow the line of close investigation in other subjects, and we have cut from the newspapers all the little maps given when a battle is described. The children are glad to see a larger portrait of Cuba or of Crete than the small *carte de visite* usually given in the common atlas. They also like to trace the routes taken by the armies or the lines followed by the explorers in the far North. The question of the Venezuelan boundary gave us a good map of that country, and the war in Abyssinia furnished another. The opening of the "Iron Gates of the Danube" yielded its quota, as well as the talk of Hawaiian annexation, and all alike are receiving better ideas of the topography of Grecian territory than that we formerly had by this gathering of maps.

(e.) Personalities. Another envelope might be devoted to personalities, meaning anecdotes or short biographical sketches of distinguished persons. Illustrated catalogues of authors are sent out by Harpers, by Houghton, Mifflin & Co., and other publishers, and these little portraits we place in this envelope instead of our pictorial one. In connection with this, I would like to recommend a small paper-covered volume which I have had in use for some time. It is compiled by Walsh and entitled "Nations of the World" and published by Kellogg & Co., of New York and Chicago. It contains a short sketch of each nation, with a fair picture of its ruler. If a sovereign

dies, I try to obtain a picture of the succeeding one. After the assassination, in France, of President Carnot, a picture of his successor was given by the press and was interleaved in its proper place in this little book. Later, pictures of King Humbert of Italy and Queen Wilhelmina of Holland have also been placed between its pages, and the recent assailing of Juan Borda, the President of Uruguay, gave us the first representation we had seen of his features. It may be argued that not all newspaper pictures are true to life. That is so; but at the present day so many good ones are printed that it is safe to believe they bear at least a resemblance to the original, and, besides, do we not often say of our friend, "I would rather have a poor picture of him than none at all"? You will be surprised at the rapidity with which your envelopes will fill and new ones be needed, and though I have several large scrap-books filled to repletion, besides one of "Breed's," before mentioned, I find my home-made one serves my purpose best.

SCHOOL ITEMS.

Arkansas Institute.—Mrs. N. H. Oates, of Little Rock, Arkansas, who has taken a course of training in the McCowen School, has been appointed as an additional teacher in the Oral Department. Departments of Kindergarten and Physical Culture have been established, with Miss Kate Strouse of Indiana at the head of the Kindergarten work and Miss L. May Crawford of Rossville, Indiana, as teacher of Physical Culture. Both ladies are graduates in their special lines and are teachers of some experience.

The school is trying the double-session plan this year. The classes are divided into two grades, the teacher taking one grade in the forenoon and one in the afternoon, alternating the grades each week. The morning and afternoon sessions are shorter than formerly, but the plan insures to each teacher a class of not over ten or twelve pupils at a time, of even

grade. Each teacher has between sixteen and twenty pupils to teach, but has only half of them in class at a time.

Indiana Institution.—Dr. William H. Latham, “in token of his long, faithful, and valuable services as instructor and author, and of his active work in the education of the deaf, covering a period of fifty-two years, forty-four of which have been given to the Indiana Institution,” has been made “professor emeritus” of history, moral philosophy, and physics. Mr. Stephen W. Gilbert has resigned to accept a position as teacher in the Missouri School, and Mr. Charles Kerney has retired on account of ill-health. Miss Letitia M. Booth, formerly a teacher in this Institution, and later in the Central New York Institution; Mr. Utten E. Read, M. A., a graduate of Illinois College and of the Normal Department of Gallaudet College; and Miss Elizabeth Ray, who was trained for oral teaching at the Clarke School, have been added to the corps of teachers.

A gymnasium, an ironing-room, and a boiler-room have been built during the summer. As the appropriation for the gymnasium sufficed only to erect the building, the purchase of apparatus is deferred, but in the mean time a good place is provided for play in bad weather.

Louisiana Institution.—The opening of the school term is postponed until the frost shall have stopped the spread of yellow fever.

Minneapolis Day-School.—A bill to authorize classes for the deaf in common schools, similar to the one that was passed by the Illinois legislature (published in the last number of the *Annals*, page 350), was introduced into the Minnesota legislature last year, but it failed to become a law. In consequence of its failure, the Board of Education of Minneapolis have closed the day-school for the deaf in that city. We are informed that Miss Brown, its teacher, has opened a private school.

Mississippi Institution.—On account of the quarantine for yellow fever the opening of the school term is postponed until some time in November or possibly the first of December.

Nebraska Institute.—Mr. J. A. Gillespie, principal of this Institute since 1878, is succeeded by Mr. H. E. Dawes, formerly a teacher in the Nebraska Institution for the Blind. Mr. Gillespie's resignation was asked for by the Governor on the ground that there were irregularities in his accounts, but it is charged by the Republican newspapers of the State that the real reason was a political one. Several of the teachers, among them Mr. and Mrs. W. E. Taylor, have also lost their positions. We are informed that Mr. Gillespie intends to open a private school for auricular instruction in Omaha.

New York Institution for Improved Instruction.—Dr. Bernhard Engelsmann, the first principal of this Institution, died in New York in September last. He was trained as a teacher of the deaf in the Hebrew Institution at Vienna, Austria. He came to New York in 1863, and in 1864 gathered a class of private pupils whom he taught by the oral method, thus being the founder of the first exclusively oral school for the deaf in America that achieved permanent success. Out of this school grew the New York Institution for Improved Instruction, which was opened in 1867. Dr. Engelsmann was its principal from its establishment until 1869, when he was appointed director of the articulation work in the New York Institution at Washington Heights. He remained here for three years. In 1873 he resigned the position to study medicine, and after completing his studies was engaged in the practice of that profession until his death. He continued to take an interest in the education of the deaf, contributing several articles to the discussion of the subject in the pages of *Science* in 1890 and 1891.

Northern New York Institution.—Miss Clara E. Parker, a teacher in this Institution for the past five years, died at her home in Marlboro, New Hampshire, September 24, 1897, of a sarcoma. "Her love for the beautiful," says the *Mentor*, "was a personal characteristic, and in her pupils she created a growing love for the good and the beautiful. It seemed to be the aim of her life to assist others to higher and nobler thought, and her willingness to help and to encourage her friends, even when that help demanded the sacrifice of personal convenience on her part, was ever apparent."

Miss Dell Bartoo, who was trained in the Normal Department of Gallaudet College, and Mrs. Jennie Parrish, a graduate of the Indiana Kindergarten Normal Training School, have been added to the corps of teachers.

Ohio Institution.—Miss Stoneberger, of the Oral Department, resigned in July to be married, and Miss Atwood resigned to teach in the Alabama Institution. Mrs. Lida Mansur has been appointed supervising teacher of speech, Miss Eliza O'Harra has taken the class formerly taught by Miss Stoneberger, and Miss Mary Grimes has been appointed oral teacher for beginners.

Washington State School.—Mr. Joseph Anderson Applewhite, M. A., a graduate of Millsaps College, Alabama, and of the Normal Department of Gallaudet College, has been added to the corps of instruction.

West Virginia School.—In June last Mr. C. H. Hill, who has been principal for the past nine years, resigned. At a meeting of the Board of Regents held in July, his resignation was accepted, and Mr. James T. Rucker, of Greenbrier county, West Virginia, was elected his successor. Mr. Holdridge Chidester, a teacher in the School for twenty-seven years, was retired, and Mr. A. J. Thompson was elected in his place. Mr. Hill has accepted an appointment as teacher in the Missouri School.

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Principal.

AMERICAN ANNALS
OF
THE DEAF,

EDITED BY

EDWARD ALLEN FAY,

UNDER THE DIRECTION OF

J. WILLIAMS, OF CONNECTICUT, R. O. JOHNSON, OF
INDIANA, J. E. RAY, OF NORTH CAROLINA,
A. L. E. CROUTER, OF PENNSYLVANIA,
AND D. W. McDERMID, OF
MANITOBA,

Committee of the Conference.

VOL. XLIII.

WASHINGTON, D. C.
PUBLISHED BY THE CONFERENCE OF SUPERINTENDENTS AND PRINCIPALS OF
AMERICAN SCHOOLS FOR THE DEAF.
1898.



Printed by Gibson Brothers, Washington, D. C.

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AMERICAN ANNALS OF THE DEAF.

VOL. XLIII, No. 1.

JANUARY, 1898.

KINDERGARTEN WORK IN THE NEW JERSEY SCHOOL FOR THE DEAF.

I SAW recently, in the New Jersey school at Trenton, some kindergarten work that seems to deserve mention in the *Annals*, for the reason that it is more in accord with the modern philosophy of education than are the ordinary kindergarten methods, and it is especially suited to the requirements of deaf pupils, who are usually received when past the kindergarten age, yet are in need of some such preliminary training. It is also a scheme that demands little financial outlay, an item that will commend it to many.

The conductor of the kindergarten, Mrs. Frances H. Porter, says of her work, "There is no theory about it." Nevertheless, I may assert that the work is carried on in a true Froebelian spirit, and, as with Froebel, the main idea is "education through self-activity." The teacher of the deaf will be better pleased with a more definite expression of the purpose in this work: the acquisition of language from first to last, based upon the child's own thought and experience, and entire familiarity with his surroundings, are the gifts to be bestowed upon the child.

Mrs. Porter brings the child as soon as possible into intimate relation with common home events. Believing that the right starting point of his formal education is to be found in whatever notice he has already taken of himself and the world about him, she has little rehearsals in

One little boy asked if his letter to papa remained in the Trenton post-office till his papa came for it from Jersey City. With a paper mail-wagon and train of cars, it was possible to explain to his entire satisfaction how his papa received the letter, even to tell him about the letter-carrier who delivered it. In this lesson members of the class took the parts of postmaster, letter-carrier, and servant or lady of the house to receive letters, and it was also explained to those who lived in the country why they had to go to the post-office for their letters. Then there is a railroad crossing with switches and flagman, a station further on, and a train of cars; and in the lesson on travelling, which seems to be the one they most enjoy, they learn how to act on the cars, especially if alone, and what to do if their friends fail to meet them. Toy tickets and money are provided, to make the lesson as complete as possible.

A lesson on flowers is given, in which the children cut out of colored paper the leaves, flowers, bud, of such common flowers as the daisy, buttercup, wild rose, pansy; if a little drawing or painting will help, it is resorted to.

Various holidays and festivals are celebrated in the kindergarten by making suitable tokens of the day; for instance, a national flag, fire-crackers, torpedoes, for the Fourth of July. As I write, word comes that the third grade are making Pilgrims, Indians, log-cabins, wigwams, wolves, to group on a plan of Plymouth, for the Thanksgiving-week lesson.

Apart from rehearsals of home life, Mrs. Porter has also attempted to illustrate stories in this way. She has the tale of Little Red Riding Hood; there is the grandmother's cottage in the wood with painted trees, the little girl in her scarlet hood with basket on her arm, and the wolf. She goes through the whole story, moving the figures as needed.

It may be easily conceived that in designing patterns

for all these things a great deal of ingenuity is required, in order to keep them simple and yet to represent the desired object with sufficient accuracy; fortunately, Mrs. Porter has manifest gifts in this line, and for teachers who have not it would not be difficult to make similar objects from patterns. I may state here that Mrs. Porter is now making a book of patterns which she hopes in time to be able to fill orders for; she has been experimenting for three years with this paper work, but is desirous of still further simplifying the first year's course, to avoid overtaxing the little fingers and the little brains. It is interesting to know that she was led to this work, not by the kindergarten hobby, but by the prohibition of signs in the class-room. Pictures in the air being forbidden, and her pupils too young for "words, words, words" alone, she undertook to substitute the reality of which words are the symbols, and signs the imaginary sketches. The possibilities of the method grew upon her, until her kindergarten classes were organized, and still she finds new possibilities, new problems, in endless succession. At the same time she has studied the prevailing kindergarten system, and has adopted such of the exercises as seemed to her of sufficient practical value.

In this account, I have mentioned only a few of the things I saw, and without specifying the order of progress from year to year. Of course the lessons are graded according to the understanding of the pupils, and Mrs. Porter has a plan of procedure, about which she may tell us herself some day. Pupils are admitted to the New Jersey school at eight years of age and upward; when homeless or in destitute circumstances, they are received earlier. Some grades attend the kindergarten for a set portion of time each week, as a relaxation from the strain of continued book and pen work, or to gain some extra needed training. I must not omit to say that when the children go home, they are allowed to take specimens of their work as presents for their parents or friends.

6 *Kindergarten Work in the New Jersey School.*

As would be expected, where so much vital interest is aroused by bringing before the child things within his own experience and through them leading him on to those without, the language lessons are much better memorized than they are when they consist of mere word and sentence drills having no immediate connection with contemporary events or experience.

It seems unnecessary to dwell upon the habits of industry, activity, alertness, observation, formed by this course in manual training combined with language work; the advantages of such a method will readily suggest themselves to teachers. If there can be any objection to it, perhaps it is the amount of time occupied in making these articles which some may argue might be better employed in additional language work; but not with real gain, I think, in the case of first and second year pupils, or even those of the third year; nor would it answer as well to buy the articles ready manufactured.

The element of pleasure has a rightful place in all educational schemes, and "work for the joy of the working," as Kipling puts it, is an inherent need of the child and earliest demonstrated; the joy of discovery is closely allied to it. If a young teacher may be permitted to air a theory of which she is fond, not claiming it as original with herself, it is this: in making the first few years at school as full as possible of activity and genuine interest for the pupil, encouraging him to investigate and report to us rather than drilling him out of our own mass of information, we shall lay the best foundation for his future, in both a moral and educational sense, by thus giving him the impulse which leads to independence and self-culture. Are not the indolent habits, noticeable in some advanced pupils, the result of too little interest and breadth of action during the early years in school?

Do we all bear in mind to a sufficiently practical extent the fact that, before language, must come things, and that,

with language, things or the consciousness of things and understanding of things must keep pace? Who knows more about a flower, the one who has watched it grow from seed to bud and blossom, and has pulled it to pieces, part by part, or the one who has studied it in a text-book or a language lesson even when illustrated by pictures?

In writing this it has been taken for granted that it is well understood why the adoption of the same kindergarten methods prevalent in hearing schools would prove unsatisfactory in schools for the deaf, if not impracticable. My intention has been chiefly to point out an economical way of doing fruitful educational work, for the encouragement of teachers who are hampered by the lack of funds to buy apparatus.

MAY MARTIN,

Instructor in Gallaudet College, Washington, D. C.

SOME IMPORTANT CORRECTIONS.

My old friend, Philip Goode Gillett, in his annual address as President of the American Association to Promote the Teaching of Speech to the Deaf, given at Mount Airy, Pa., in July, 1896, makes an alleged quotation from an address of mine, of which I ought, probably, in justice to myself, to have taken notice before this.

The following is what appears in Dr. Gillett's address (page 15):

Dr. E. M. Gallaudet, in the course of an address made at the Seventh Convention, gave utterance to the following:

"I must say that for deaf and dumb children in school, striving to master the English language, it is a very dangerous thing. * * * * Then, if we want the children in our institutions for the deaf and dumb to master the English language, what have we to do with the sign-language? I answer, as little as possible. I would bear in mind every hour of the day and every minute of the hour the sign-language in a school for the deaf is a dangerous thing. The tendency of the sign-language is to its over-use in a school for the deaf and dumb. The ease, the readiness, with which we can reach the deaf-mute child's mind by it—the laziness,

ness of it—these features are very apt to lead to its over-use. The use of the sign-language, except in cases where it is absolutely essential, is pernicious. It hurts; it pulls down; it undoes; it brings forth groans and grunts and expressions of dissatisfaction and disappointment from teachers."

Dr. Gillett makes the following comment on the foregoing:

This is a terrible arraignment of the sign-language with which I do not agree, but it was the honest expression of views based upon accurate knowledge which, coming from any but one of the ablest men of our profession, would be most severely criticised. Many do not endorse this, for they regard the sign-language as a forceful and beautiful means of interchanging thought, but believe that extreme care should be exercised in its use. In the elucidation of any subject, as in lectures, sermons, or translations of addresses, to convey the ideas uttered to hearing persons by a speaker, it is of very great efficiency and usefulness. By this means the Gospel is carried to the deaf by clergymen of their own class, carrying to them all its hopes, comforts, and consolations.

The idea is plainly conveyed in the comment that I do not regard the sign-language with any favor whatever as an adjunct in the education of the deaf.

Mr. John D. Wright, known in our profession as one of the principals of a private boarding-school for the deaf in New York city, also quotes the language cited by Dr. Gillett, and with the same evident object, in an open letter published in the *Century Magazine* in April, 1897. The use Mr. Wright makes of my words does not surprise me, for it is plain he took them second-hand from Dr. Gillett. But that the latter, who heard my address at Indianapolis in 1870, should have quoted me as he did, and then made the comments given above, fills me with no little amazement, the reason for which is not hard to find.

By the use of asterisks indicating one omission, Dr. Gillett conveys the impression that what follows is a solid quotation from my address. So far from this being the case, four other omissions are made. The first of these, which occurs after the words, "I answer, as little as possible," is as follows (p. 64, Report of Proceedings of the Seventh Convention):

I would not be misunderstood; there are uses to which the sign-language is put that are invaluable; and while I say that the education of the deaf and dumb child *may* be conducted without the sign-language, I do not say that I think it can be *best* done without the aid of the sign-language.

The second omission occurs after the words "a dangerous thing," and is as follows :

I dare say that my words, if reported, will go abroad and be used as being a declaration on the side of the Articulationists, as they are called. I therefore wish here to disclaim anything of the kind. I do not say, by any means, that the Articulationists have any better system of instruction than can be had in connection with the use of the sign-language. Far the contrary; I only say it is a *dangerous* thing.

The third omission is not important, being only a crediting of the word "laziness" to Mr. Talbot, who had used it earlier in the day.

The fourth omission covers nearly two pages of the Convention Report, and would not be objected to had its occurrence been indicated by asterisks.

The reader will easily perceive how seriously my sentiments in regard to the value of the sign-language in the education of the deaf are misrepresented by Dr. Gillett, especially when in his comment he expresses views with which his words imply that I disagree, while these very opinions are fully covered by my words: "there are uses to which the sign-language is put that are invaluable," which Dr. Gillett has omitted.

Now, I would not have it understood that by filling up the gaps in my Indianapolis utterances, relative to the use of signs in the school-room, I wish to retract or qualify the views expressed in the words that were quoted. Taken in connection with what was omitted, I am glad to acknowledge them and stand by them, for they show, what some of my friends seem to be unaware of, that the "English language method," which has been brought forward as new in certain quarters within a very few years, had my approval and open championship twenty-seven

years ago—when some of its most active supporters of to-day were, presumably, in their nurses' arms.

In a recent number of the *Mt. Airy World* an editorial appears directing attention to what the writer seems to think is a new departure at Gallaudet College. This is alluded to as marking "an epoch in deaf-mute education." The quotation from a recent publication of the College is as follows:

The chief use of the sign-language is in public lectures and addresses. The manual alphabet is largely employed in conducting the recitations of the class-room, for the reason that it is believed to furnish the best means of quick and accurate communication for work in which an entire class can take part understandingly.

It is pleasing to me, for reasons I need hardly express, that the above statement of the existing practice at the College, as to the use of the sign-language and the manual alphabet, should find favor at Mt. Airy. But I would like to assure the friends of the College there, as elsewhere, that it is no "new departure."

If the reader will turn to page 61 of the Proceedings of the Indianapolis Convention, he will there find evidence that "the English language, not the sign-language," was made "the basis of communication and instruction" in the College at Washington as long ago as 1870. I may add that in the public religious exercises of the College, long before the "manual alphabet method" was brought to the notice of the public, finger-spelling was largely in evidence, and continues to be to this day. But it should not be inferred that at the College there is a diminishing use of the sign-language compared with former years. It has always been our aim to use it "as little as possible" in the class-room. But, for "public lectures and addresses," we make free use of it, as we always have done. In this connection I would like to quote from an article of my own, published in 1884, in Buck's Reference Handbook of the Medical Sciences, and reprinted in the *Annals*, vol. xxxii, p. 141, July, 1887, views as to the dignity

and value of the language of signs, which I hold to-day as firmly as when I first gave expression to them. Speaking of the object of the article, I say :

The aim will be to show that there is a true language of gestures ; that it is as natural and may be as complete a vehicle of expression as speech ; that this language has great utility among people who hear ; that in the humane and scientific education of the deaf it is indispensable ; that its judicious use by deaf-mutes is a source of great benefit and pleasure during the entire period of their lives ; and that among this interesting and intelligent class of the community nothing can be found that will take its place.

I will venture to invite those who feel an interest in the subject to refer to the article as given in the *Annals*, and ascertain how fully the "aim" above stated is attained.

Dr. Gillett in his Mount Airy address makes a statement in regard to the views of an old friend of mine, long since deceased, respecting the sign-language which is quite as misleading as the one he assumed to quote from me.

On page 15 of his address will be found the following :

Mr. James S. Brown, superintendent successively of the Indiana and the Louisiana institutions, one of the most graceful and forceful persons in its use, who has made so close a study of it that he at one time essayed the preparation of a dictionary of signs, spoke of the sign-language at the Third Convention as a humbug—a mere jargon.

The reader will search in vain through the Proceedings of the Third Convention for any such statement from Mr. Brown. The discussion, during the progress of which the words "jargon" and "humbug" fell from Mr. Brown's lips, was upon two papers, one by Rev. John R. Keep, then an instructor in the Ohio Institution, on "The Best Method of Teaching Language to the Higher Classes in our Institutions for the Deaf and Dumb," the other by Jacob Van Nostrand, Senior Professor in the New York Institution, on "The Cultivation of the Sign-Language as a Means of Mental Improvement to the Deaf and Dumb." Mr. Keep advocated a restricted use of the

sign-language in the class-room in the later years of the course, while Mr. Van Nostrand urged that "to define one word by another is difficult, if not impossible in the earlier stages of instruction, and even with the more advanced pupil, the substitution of a word familiar to him, to explain one that is new or not familiar, unless accompanied by an explanation in signs, does not always convey to his mind a true and accurate idea of the full force and meaning of the word."

In the discussion which followed, much was said as to signs in the [so-called] "natural order," and "methodical signs," which follow more nearly the order of English. Mr. Brown expressed himself decidedly in favor of the latter, criticising what was often called the "inverted" order, in the following sentence: "The best way is not to employ a jargon under the title of natural language," meaning by these last two words, signs in the inverted order. Later on he said: "If we write down the ideas expressed by *this* sign-language, we find it nothing but a jargon." Still later on he said he "believed in the use of natural signs in all ordinary communications of fact to the pupil, especially for the investigation of simple facts and forms of expression that are not very complicated; but after the first expressions, let methodical signs be adhered to rigidly, and never let natural signs be reverted to except on the first occasion."

At another point in the discussion Mr. Brown said "he found himself compelled to choose between two evils. If signs were used at all, he would give the preponderance to those known as systematic [methodical] signs. Natural signs were, in some cases, a mere humbug." Being called upon by Dr. Harvey P. Peet and Rev. William W. Turner to explain himself, "Mr. Brown replied that in employing the word 'humbug' he had intended no personal application of it. He applied it to the general use of signs, which are of no available use whatever to the

pupil when they cease to subserve any useful end. Reference had also been made to the matter of the 'jargon' employed by deaf-mutes. In using this term Mr. B. would not be understood as referring to pantomimic representations or to the higher kinds of illustration, but to natural signs, in the pursuit of which he had lost much valuable time."

Can it be possible that Mr. Brown meant by "natural signs"—the only sort to which the words "jargon" and "humbug" were applied—such as are in acknowledged use by our pure oral brethren? And, if he did, was it not a mistake for Dr. Gillett even to misquote him?

Towards the close of his address Dr. Gillett alludes to the College at Washington as being "at the head of the sign schools for the deaf in America." That a man so experienced in our profession, and so well versed in all the terms employed in describing its work, should make use of such an expression as "sign schools" is a matter of great surprise, as it would not be to find the words in an article by Millington Miller. Still greater is my wonder that he should apply the term to the College, where the "English language method" and speech teaching have had their places these many years. Can he mean by "sign schools" those who work wholly under the Manual Method? The only schools reported in the *Annals* for January, 1896, as practising this method exclusively are those at Santa Fe, New Mexico; Cincinnati, Ohio; Evansville, Indiana, and Dubuque, Iowa. These schools contained an aggregate of thirty-one pupils. Can my old friend mean that it is only at the head of these four schools that the College "stands"? If not, what does he mean?

Several other inaccuracies of minor importance in Dr. Gillett's address deserve a passing notice, such as: "Mr. [Thomas H.] Gallaudet * * * embarked for England with a fixed purpose of acquiring a knowledge of the oral

method of instructing the deaf,* which was the one prevailing throughout Great Britain;" and "the sign-language, as a method of instruction, held," etc., etc.

One other serious misstatement remains to be corrected, in answer to which I have more than once made the facts public, but which seems to be a favorite charge against me in certain quarters. Referring to the First Conference of Principals, held in Washington, Dr. Gillett says: "In the spring of 1868 he [President Gallaudet] invited a conference of the principals of all the schools for the deaf in this country—except the oral schools—by the issuance of a circular," etc.

I have before me the early reports of the Clarke Institution and the Institution for the Improved Instruction of Deaf-Mutes, New York, the only oral schools existing in this country in 1868, so far as I am aware.

The first report of "The Association for the Improved Instruction of Deaf-Mutes" bears date May 12, 1868, the very day the Conference met at Washington, the call for which was issued in March. Mr. Engelsmann, for the first time announced to the world in this report as the principal of this new school, prints an addendum in which he says that on May 15th he read in the New York *Herald*, with much pleasure, a paragraph stating that the Conference at Washington had taken action favorable to the teaching of articulation to the deaf.

The first annual report of the Clarke Institution bears

*I do not remember to have seen anything in my father's papers to justify this statement. In a letter from London to Dr. Cogswell, dated August 15, 1815, my father speaks of having met the Abbe Sicard some weeks before, and of having attended his lectures. He says the Abbe gave him a cordial invitation to spend some time in the school at Paris, and offered him every facility there. But he tells Dr. Cogswell of his continued efforts to gain access to the London school, and says: "I should wish, and I yet hope, to *combine* the peculiar advantages of both the French and the English modes of instruction." Evidently my father's prophetic eye foresaw the excellence of the Combined System, which is now so widely acknowledged.

date January 21, 1868. I cannot now say when I first saw a copy of it, but do not think I received one until after the meeting of the Conference. This, however, is not of importance, for in the report there is no statement that the new school had a principal. The names of Harriet B. Rogers and Mary S. Byam appear on the list of officers as "teachers," and "Extracts from the teacher's report" are signed by Harriet B. Rogers.

I trust it will be evident from the foregoing that "the oral schools of America" were not intentionally shut out from the Conference of Principals at Washington, as has been repeatedly claimed by their friends. And I hope that I may once for all be acquitted of unfriendly purpose in the matter when I say that, had these two new schools then *had* principals, and had I been aware of the fact, I should certainly have invited them to Washington, and shown them every possible courtesy and attention.

EDWARD M. GALLAUDET,
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THE FOURTH CONGRESS OF GERMAN INSTRUCTORS AT DRESDEN.

WHEN I learned that the triennial meeting of the German Congress of Instructors for the Deaf was to be held at Dresden, while I was in Germany, I hailed with delight the opportunity offered me to be present.

In company with the officers and several teachers of the Imperial Institution I left Berlin a few days in advance of the time for the opening of the Congress. I looked forward with pleasure to a few days in and about Dresden, and my anticipations were realized to the fullest. Beauty upon beauty in nature and in art were around me on every side.

On September 29th the Congress was formally opened in the salon of *Die Drei Raben*, at 8 o'clock in the eve-

ning. Upwards of a hundred and thirty representatives were present, including delegates from many of the continental countries. Intense earnestness was visible in all these representatives, who had come to gain new thoughts and fresh inspiration to carry home with them to aid them in lifting their pupils to a higher plane.

Minister Stoetznier opened the Congress with graceful words of greeting and welcome, after which the treasurer read the names of the delegates, who responded by rising in their places. The meeting then proceeded to the election of officers, and the arrangement of the order of the program. Abstracts of the papers proposed to be read had been printed in advance in the *Blätter für Taubstummenbildung*. One of these, by Mr. E. Göpfert, of Leipsic, on "The Place of Writing in Language Instruction," advocated the teaching of writing before speech to true deaf-mutes, especially the less intelligent. Dr. Schneider, of the Prussian Bureau of Education, who was present at the Congress, objected to the reading of this paper, on the ground that it presented new ideas and seemed to be a lowering of the flag of the German method. He recommended that the paper, instead of being read at the Congress, be printed in one of the professional periodicals, after which the views presented might be considered at some future Congress. The paper, therefore, was not placed on the program.

The Thursday morning session of the Congress convened at 9 o'clock, at the Royal Belvedere. Mr. Von Seydewitz, Minister of Education in Saxony, made the opening address. He spoke as follows: "You have conferred the honor upon me of inviting me to your Congress, and I accept the kind invitation with pleasure. I am thus given an opportunity to express to you personally the deep interest which the Bureau of Education in Saxony has always taken in the education of the deaf, and their advancement in every particular. The two institutions for the deaf in Saxony

must thank two private individuals for the initiative movement that started them, namely, Heinicke and Jencke; these are the men who first called the institutions into being. These men dwell in our grateful remembrance. Gradually, in Saxony, the control of these schools was assumed by the state. The Bureau of Education has spent some of its best efforts in providing for the education of this class. Nevertheless, we are far from saying that what the state has done has been complete, or that the goal has been reached; we shall therefore be grateful to you if, out of your larger and richer experience, we receive new help and suggestions regarding the practical education of the deaf. All teaching, if done in the spirit of earnestness, is hard work, but how much harder is yours who teach children of only four senses, whose mouths and ears are locked by deafness, which makes it indeed difficult to develop the reason, the will, the emotions, and in short the whole character. Your task, therefore, if the results are to be commensurate with the work, requires the utmost patience and vigilance. But with joy I say you have accomplished many such results, and it is my wish that success shall crown your future efforts even more abundantly than in the past."

Dr. Schneider, of the Prussian Bureau of Education, followed; from his address I cull the following:

"The schools for the deaf of Prussia are constituted somewhat differently from those in Saxony,—a number of schools being under provincial control. This has the advantage of making greater variety in method, but the disadvantage of the difficulty of uniting these various branches into one harmonious stream. I am permitted to impart to you that the attendance at schools for the deaf is to be made compulsory. But the main thing that we are to consider here is the work and the welfare of the pupils. Here in Saxony the first attempt was made to instruct the deaf orally. I believe that it will be possible

to restore the deaf to the state, to society, to the church, and to the home."

Mr. Göpfert, of Leipsic, presented to the Congress "A Message to All Interested in Promoting the Education of the Deaf in Europe, from the Officers and Directors of the Columbia Institution at Washington." It was voted to receive the message and return a suitable reply. The Congress then proceeded with the regular order.

Director Stoetzner was first on the program and addressed the Congress on the subject, "Provision for the Deaf in the Kingdom of Saxony." He stated that the percentage of deafness in Saxony had been steadily decreasing. In 1871 there were 6.27 deaf in every 10,000 persons; in 1895 there were only 5.25. He attributed this decrease to the improved social conditions,—as in dwelling-places, wholesome nourishment, and proper medical treatment. He regretted the fact that marriage among the deaf was on the increase. There are, in 1897, 368 couples, both husband and wife being deaf. From this it is expected that the number of deaf children will increase.

In Saxony 380 deaf children are of school age and all these are under instruction. Attendance has been compulsory in Saxony since 1872. In that year the *Filiale* in Plauen was founded, which has now been converted into a preparatory school. In this school children are received at the age of five years and even younger when they have no good homes. The children are divided into three classes, the lowest being made up of those who are thought to be the weakest in intellect. This class is taught by both signs and speech. In the other two classes speech alone is used. The children stay in this preparatory school two years. The children receive the very best care possible, nourishing food, conscientious oversight, and manual occupation such as they are capable of and from which they can receive the greatest benefit in the development of their muscular control, and

which at the same time serves as a foundation for the advanced manual training they are to receive at the main school. But first and above all the senses are cultivated.

The course in the main school is eight years. In this the children are assigned to such departments as their especial gifts seem to warrant. The German method is followed in all classes. A great effort is made to teach pupils to read understandingly and speak intelligibly. The instruction is oral, yet it is impossible to exclude signs entirely. Especially are signs indispensable in teaching history and religion.

When the boys have completed the course of instruction, they are apprenticed.

Every master who succeeds in making an apprentice self-supporting through his craft receives a premium of 150 marks. The institution always remains in touch with the deaf throughout the kingdom by means of branch bureaus in ten of the largest cities of Saxony, and has a fund out of which the needy deaf may at any time receive pecuniary aid.

The next subject, "How to Train our Pupils for Practical Life," was presented by Dr. E. Hollenbach, of Gerlachshiem. Training for practical life forms the great problem for the teachers of the deaf. The most important factor at the outset is the cultivation of the will, and, with this as a foundation, building upon it the desires and rounding out the character to make good citizens. This training must be accompanied by proper care of the body. It is very desirable that the deaf should have enough intelligible speech for the affairs of every-day life, be made familiar with the manners of good society, and receive manual training sufficient to enable them to earn a livelihood. The speaker thought that these results could be accomplished more readily in small institutions. He also thought a school in which the boys could be taught trades, and another where the girls could be taught domestic economy, would be very desirable.

Next came a plea from Director Cüppers, of Treves, for fuller statistics regarding the deaf. The profession would be much helped if fuller statistics could be gathered by parents, by teachers, and by the deaf themselves. These statistics should then be in the hands of all superintendents and physicians, and would often aid them in forming correct judgments. A model set of questions was submitted to the Congress. Two of these are worthy of note. First, one regarding the consanguinity of the grandparents; and, second: "Does the child use signs to make himself understood?" There were one hundred and five questions in the list.

Before the Congress adjourned a message of greeting was received from Albert, King of Saxony.

A banquet was given the delegates in the banquet hall of the Royal Belvedere at three o'clock.

On Friday morning, at nine o'clock, the Congress met again at the same place. Completing the organization and changes in the constitution occupied part of the morning. Director Walther of Berlin was elected President of the Association under the new arrangement.

An address was delivered by Dr. Schumann, of Leipsic, on "A Museum for the Collection and Dissemination of Information regarding the Deaf," to be located in Leipsic. This museum is to be incorporated under the law of 1868. Its object is to collect material by means of which the general public may become better informed regarding the status of the deaf, their schools, their history, and a comparison of their condition with that of the deaf in foreign countries. It is to consist of publications bearing upon the deaf, a reading-room, a department of statistics, and a gallery containing busts and medallions of teachers, benefactors, and prominent deaf persons. The expenses are to be defrayed by the Congress and by gifts and legacies.

One of the pleasant features of the Congress was an

excursion on Friday afternoon to Meissen. A perfect October day helped to make impressive the historic ground of this quaint old city. When I found myself in the court-yard of the castle with the magnificent cathedral looming up before me, the spirit of the past took possession of me, and, in fancy, I saw the castle peopled by gallant knights and fair ladies, and their voices seemed to echo through the corridors. In the organ room we heard the choir singing Mozart's *Ave Verum Corpus*, and the whole scene left an impression never to be forgotten.

Saturday morning the Congress in a body visited the preparatory school at Plauen. A kindergarten teacher, a manual teacher, and two gentlemen have charge of the children. The building is roomy, and a pleasant garden furnishes a play-ground for the little ones.

Next we visited the asylum for adult girls. In this asylum needy girls who have no homes are received. They work, and earn what they can. The Queen of Saxony is a patroness, and many aristocratic ladies furnish the girls with sewing and embroidery.

From here we went to the main school at No. 2, Chemnitzer-strasse. In this school there are twenty-seven teachers—twenty-two gentlemen and five ladies. There are at this time two hundred pupils of both sexes. In the chapel of the institution farewell speeches were made, and then the Fourth Triennial Congress adjourned.

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healthy growth as proceeded in spite of them. It is seen that unanalyzed truth cannot profitably be boxed up in words and packed away in memory's chambers for future use, because the mind, in its efforts to reach and maintain unity in its processes and their results, tends continually to throw out all such uncorrelated elements of knowledge.

Out of the likeness and difference of repeated sensations with their residual effects arise percepts and then concepts. The affinities and potential relationships existing between complexly interrelated groups of sensations being the real basis of thought, these the teacher must study and deal with ultimately, if he would understand his own work and give it the greatest possible efficiency. All teaching fails of its end in greater or less degree because no teacher fully understands the character and contents of the individual minds entrusted to his care. In one particular we continually err, namely, in trying to strengthen the digestive powers of the child-mind by over-feeding it on the symbols of thought,—great masses of words which become to the pupil the mere husks of truth, bereft of all life-giving power. Words we must teach first, last, and always; but, far more than is usually the case, the symbol and its corresponding reality should be taught together, and held together in the pupil's mind till indissolubly associated. This can best be done by correlating instruction as closely as possible with environment.

Through a long line of profound thinkers, from Rousseau to Herbart and Spencer, there has been a tireless insistence upon the principle that all mental activity is based upon the results of sense-perception. For the teacher this means that each extension of the pupil's thought must rest upon a previously acquired or specially prepared sense-experience. No less than pigments in the art of painting, stone in sculpture, rhythmic sound in poetry, are sensations the absolute conditioning basis of

the art of thinking. Hence sound teaching should bring into very frequent action the mental processes by which we generalize concepts directly from sensations and their consequent percepts, and by continual correction and verification assimilate these concepts to the truths symbolized in words.

Over and above the material of thought is the mystery of the perceiving, selecting, retaining, unifying "ego," the product of unnumbered generations. By sympathy we can enter into, quicken, aid, and direct its several activities, whose mutual reaction and growth constitute development; and, by ordering the subject-matter of their action, we can in some measure control the ultimate results. The more arbitrary or artificial the selection of subject-matter or its presentation, the more certain we are to lose even this partial control of development, so fundamental to the educator's success. To avoid blundering here, the laws governing the excitement and concentration of interest must be carefully observed. Every thought is a force operating upon the sum total of mental action in proportion to the degree of permanent interest aroused. The mind's activities being chiefly concerned with the mass of sense-impressions, constantly received, its interest is in general most profoundly affected by the revelation of new truth as operative in its immediate environment. For instance, a lone unknown beggar, perishing on our doorstep, affects us more, and teaches us as much, as all the starving millions of India. Particularly is this true of children.

The law here illustrated is fundamental. Teaching which proceeds in defiance of it will have at least two far-reaching and disastrous results: First, the unjust discipline necessary to break down the child's natural rebellion against such arbitrary procedure must often injure its moral character; second, the central guiding purpose of the teacher's efforts is defeated in his failure to arouse

in his pupils a deep abiding interest, many sided, yet most strongly directed to the "mother-ideas" of a noble, effective life. Only such an interest secures continuous self-evolving power and permanence to education. To enlist its full power is one of the teacher's greatest tasks, and one easily made impossible by a careless, ignorant disregard of the natural laws governing mental activity.

Both the educational and the interest-exciting value of any given idea is purely relative, and is dependent upon the peculiar proportionate strength, mode of combination, and extent of the ideas already existent in the perceiving mind. We have here an additional reason for bringing our teaching into the closest possible relationship with environment, since it is so largely a determining factor in the character of these ideas. Text-books, no matter how perfect, cannot be made to suit all conditions. In most cases they fail utterly in this respect. Consequently, slavish attention to them, particularly as to relative emphasis upon subordinate topics and general illustration of principles, entails, in a measure, both lack of interest and waste of time. Teachers often fall into error along this line through the mistake of estimating the educational values of ideas too much by personal or absolute standards of their ethical or æsthetic significance, and their logical importance in organic systems of thought. As well might a farmer determine his crop-planting by the absolute economic value of the different crops, rather than by the peculiar conditions of soil and climate under which he must plant.

As we have said, the great danger in all educational efforts, and especially in moral and religious instruction, is that the symbolism of language will be allowed to intervene too constantly between the pupil's mind and the object of its contemplation. In that case his thought becomes vague and confused, because attempting to grasp generalities before a sufficient number of the correspond-

ing particulars have been clearly perceived. Also, failure to lead the mind to direct perception of things good and beautiful hinders fine emotional development, which is immediately dependent upon such perception.

Rousseau's powerful protest against this error wrought a complete revolution in educational methods. In a frequently quoted passage he says: "Generally speaking, never place the sign before the thing signified, unless it is absolutely impossible to produce the thing itself. Things! Things! I cannot repeat too often, we give too much importance to words. With our talkative education we produce prattlers." Pestalozzi, perceiving and applying much of the abundance of truth in Rousseau's false theories, says, in his account of the school at Stanz: "I tried to connect study with manual labor, the school with the workshop, and *make them one*." He believed, and thousands after him have believed, that children, as well as poets, have a capacity for "deeply drinking in the soul of things," but with them the process is unconscious and its results appear in the evolution of character—in deeds, not words. The reform influence of Froebel's work tended, even more than that of his predecessors, to a closer and more careful correlation of instruction with environment. In the chapter on "Man as a Scholar" he discusses in detail "how all instruction must proceed from the scholar and his nearest surroundings, must refer back and return to man."

The tendencies of educational reform in late years clearly indicate the trend of thought upon the subject under discussion. We have seen the almost universal study of the dead languages to some extent supplanted by that of the living, the physical sciences steadily encroaching upon abstract language study of any kind, while all science teaching is more and more based upon the direct study of things. The phenomenal growth of the kindergarten and manual-training movements, the universal demand for

finely illustrated text-books and for varied and abundant school-room apparatus, the amount of discussion devoted to object-lessons, nature-study, and child-study are unmistakable indices. Another indication is the effort to do away with hard and fast lines of distinction marking off each of the common-school studies from all the rest, and, by subordinating text-books, to give a more localized character, greater unity, and greater interest to the subject-matter used in developing the principles of each subject.

Most of these changes are based, in part at least, upon the theory that sound teaching must start from and return to the immediate environment of the pupil by ever widening but always clearly defined circles of thought; from physical measurements, as the numbering of toothpicks and the weighing of water, to abstract number relations, and back again to the application of these in the workshops of life; from the unwritten history of the child, its brothers, sisters, parents, out to that of friends, heroes, nations, and back again to the social and civic duties of the individual. Each of these circles must begin within the experience of the pupil and proceed from definitely realized groups of sensations; else it is vague, incomplete, a footless fancy. Therefore, his experience, particularly as given by the senses, should be extended and specialized in every possible way.

According to this view, the correlation of instruction with environment is a twofold process, first bringing the pupil's thought into direct correspondence with definite objective facts, then constructing important circles of thought upon the foundation in experience thus prepared. Every laboratory experiment is a concrete illustration of this process, which of course underlies all purely scientific study. But its thorough application in the most elementary teaching is no less necessary than in advanced instruction.

All thought is a passing from a part to the whole, or

from the whole to a part,—is synthetic or analytic. By analysis the teacher segregates and presents to the pupil important groups of facts; by synthesis the pupil, having followed the analysis, perceives the binding relation of the facts and passes to the general conclusion to be conveyed. To react most powerfully upon a child's mental life these fundamental processes of thought should be applied to thoroughly familiar phenomena, or such as are easily brought within the range of direct observation. When the facts or mental images called up are clearly recognized, they are easily held in suspension, while almost the whole power of the mind is left free to follow out or carry out the processes of analysis and synthesis. Herein lies the true secret of teaching children to reason.

In arithmetic, for instance, instruction should be made as concrete as possible, and confined to very small numbers, till the fundamental processes are thoroughly understood; that is, the direct study of quantitative relations should precede their symbolic representation. Where haste is made very slowly during the primary and intermediate years, there will be less of that wilderness of confusion,—much knowledge (?) and no comprehension,—that is so often the despair of the high-class teacher. In geography the facts as to the rotary motion of the earth, surface variation and erosion, atmospheric movements and the deposition or absorption of moisture, production and distribution, may all be presented in vital connection with observed phenomena, which, by localizing in time and space the particular effects of a general truth, enable the child-mind to grasp it. The pupil then has a positive basis in experience for the induction which we desire him to make. Until this induction is made, memory alone is taxed and the teaching has failed of its true purpose. In history the past should be studied in constant contrast and comparison with the present, and the social and political life of the present where it touches most directly

the life of the pupil. If the numberless facts presented are not threaded upon vital lines of association, which extend into, and in some measure group and interpret, the phenomena of our present life, then the study is practically valueless.

Once thoroughly understood, the general principle here emphasized will be recognized as fundamental in the teaching of every subject. It is old as the doctrines of Aristotle, but every young teacher needs to seize hold upon it for himself and think out its applications to the peculiar conditions of his own work. This is far from easy. It requires constant and close observation, a continual breaking away from old ruts, some ingenuity, and considerable enthusiasm. It means bringing one's inmost life into touch with that of the class, unifying, guiding, and directing it, so that all are imbued with the spirit of reverent inquiry, and hold to the right of independent thought.

The direct study of things and observation of present facts leads to this, because in examining the simplest flower, for instance, both pupil and teacher come at once into the presence of mystery,—suggestive questions that neither can answer. But the close study of text-book language with wordy explanations by the teacher, who is too often afraid to admit the tenth part of his ignorance, leads to the opposite effect, the *I-know-all* state of mind so frequently characteristic of graduates, and so fatal to true educational growth. Of course if one does not observe closely or think carefully about the phenomena of daily occurrence about him, he cannot teach his pupils to do so. If

A primrose by the river's brim
A yellow primrose is to him,
And it is nothing more,

so it must be to his pupils, as far as his efforts are concerned.

The mind passes by a radial extension of thought along vital lines of association, from its present and finite to its infinite environment. As the law of gravitation is illustrated in every step we take and every falling particle of dust we see, so all fundamental truths are continuously operative in the ceaseless play of complex reaction going on about us. The teacher above all others is called upon to the utmost of his ability to probe, analyze, and weigh the seemingly simple and common facts of every-day life, to discern their significance, and lead his pupils with him to some slight perception of the grandeur, the beauty, the governing power of their underlying truths.

Emerson says, "The constructive intellect is the marriage of thought with nature." Jesus taught thoughts that flash to the utmost limits of human understanding, in a few words about a mustard-seed, growing grain, the lilies of the field. All the world's master teachers have taught by means of our mental images of nature. The more clearly we perceive these images in their simplicity, and yet in their complexity and variety of relationship, the more perfectly we are prepared to understand and feel the words of great thinkers. For this reason we should lead our pupils in every possible way to clear-cut perceptions of the natural world, and base upon these a great part of our teaching.

But how many teachers almost ignore this objective stage of thought, through which we must pass to reach the indwelling higher truth! They are constantly trying to give information *en masse*, without stopping to make clear the association between particular facts and general principles, to build up concepts slowly, to understand and influence by force of thought the springs of individual character. The spirit of inquiry and the powers of independent observation, comparison, and judgment are sacrificed to the acquisition of fleeting knowledge and the training of memory and skill; while the marvellous world

about us, so instinct with mystery, majesty, beauty, and truth, remains little more than a mere commonplace. The result is limited, blind, fragmentary correspondence with environment and life, omnipresent about us, that falls far short of its reasonable possibilities.

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THE POSITION OF THE TEACHER OF BACKWARD PUPILS.

Few persons are aware of the great difficulties the deaf have to meet and overcome in obtaining an education; very few deaf persons are able to acquire the learning a hearing child gains in a few years' schooling. One great fault in the education of the deaf to-day is that many teachers attempt to give them the same amount of book education as is given to hearing children in the same space of time, regardless of the fact that the deaf have no command of language at the start.

The too early use of text-books during the first two years of the course is a hindrance to the best mental development of our pupils. It is a well-known fact that hearing children acquire a great number of words from the lips of their parents and friends which they use in expressing their wants long before they enter school. The teacher should begin with his pupils as a mother does with her child. He knows better than any one else what his pupils know and what they do not know, and so he is able to teach them the things which they are able and ought to learn.

All children have not the same intelligence and abilities. Some require a great deal of work to open up their minds, while others seem to have natural aptitude and need relatively but little care. One cannot make out of a child what is not in it. But every child is capable of culture.

It is the teacher's place to call out or develop the latent power of the child.

The first requisite is to study the child, and form a conception of its needs and capacity. Teach the child nothing but what will help it to become a man or woman. If it is deficient in command of language, would not the time be better employed in giving a knowledge of language than in teaching advanced arithmetic, geography, or history? If the teacher has at heart the future happiness and success of the child under his charge, he will lay aside his pet theory that is of little or no use to the child, and give it all that is best to fit it to fight the battle of life. Hurrying a pupil through a thing that he does not understand fully is a waste of time, and of the pupil's energy as well as the teacher's.

The ancients surpassed us in many respects, as in poetry, sculpture, and architecture. The fewness of books compelled them to study thoroughly those they had access to and to task their own resources to the utmost. So, when we come to teaching a child, we should adhere to a few things, and go over them again and again, until they become part of the child's being. The child that has a fair command of language, and has been trained to think for itself and study to advantage, will have a better chance in the arena of life than one with a good deal of book-learning that it does not know how to put to use.

The child is intrusted to the teacher's charge at the most important period of its life. He finds its mind in a rude, chaotic state. How great a responsibility rests upon him! How much courage, skill, patience, perseverance, firmness, discretion, are indispensable! The teacher has more influence over his scholars than any human being on earth; indeed, the influence remains with them long after the teacher is gone.

The success of a teacher depends upon himself. As to what the best system may be, it does not matter much if

the teacher is competent, and has the ability and talent to accommodate the system to the capacity of the child. If he fails, the fault is more on his part than on that of the system. It is of cardinal importance that the teacher should exercise his own judgment in every case.

Two great essentials to the teacher's success are energy and cheerfulness. It is well to implant in a child ideas of industry, ambition, neatness, and truthfulness, but example makes the best and most lasting impression. If the teacher will arouse the enthusiasm and interest of his pupils in what he is teaching them, he must feel the same enthusiasm and interest himself. What the presence of a vigorous energetic teacher means to a child, few can realize. He is to his pupils what a good general is to his army. His influence is so irresistible that a new life is put even into the lazy and indifferent.

Cheerfulness contributes more to making a child learn willingly than anything else. He is a successful teacher who inspires the timid and down-hearted with courage, and preserves good nature in spite of difficulties and annoyances when "the young idea" refuses to shoot. He imparts cheer to all around; his happy, contented spirit pervades the whole class. The school-work should be so interesting and attractive as to make the pupils love to study. Indeed, the memory of a pleasant, encouraging word from the teacher lingers with the pupil through the day.

The reason why so many deaf persons write bad English is because they were not taught as they should have been. Some teachers argue that the deaf child is slow. Ah! true, and there are thousands of hearing children who, at the beginning, are slow too. It must be borne in mind that many of the most eminent scholars were, at the beginning, considered dull by their teachers. They were not dull, but their teachers were too dull to comprehend the wants of their pupils, who only needed a few kind words of encouragement.

The deaf child, because it is slow, should not be given less attention on this account. The teacher should exercise all the more patience and care, and give such children encouragement.

Instructors of the deaf are often too careless about backward pupils and leave them to themselves, while they give encouragement to the brighter pupils and push them along. Such instructors are not true teachers. A true teacher has the child's interests at heart, loves his work, and never flinches from his duty, however hard and disagreeable it may be.

Give the backward pupils a chance. It pays a hundred-fold to give attention to such children; in the long run, when they are grown they have better staying qualities than brighter ones, and what they are forced to do to acquire knowledge serves them well in the work they must do in life; it gives them perseverance, and concentration of attention.

This field for instruction and for learning is very wide—indeed, unlimited. It gives the teacher an opportunity to use his inventive talent. At every step the teacher obtains new ideas through varied and innumerable avenues whereby he will be able to benefit subsequent dull pupils, and still more the brighter ones.

A true teacher may discard books and the language of books altogether, and speak to the minds and hearts of his scholars in plain, living language such as they use themselves; he passes naturally from one part of his subject to another, in a clear, connected, developing manner; he leads his scholars intelligently on, so that they can see for themselves how things come, how things grow out of each other, and how results are obtained. The trained and intelligent teacher draws out the knowledge from the minds of the scholars themselves; that is, he makes them see things themselves.

There is nothing to gain by making a backward pupil

appear before the brighter pupils as a "know-nothing." The teacher can, by a little extra work, ascertain in what the child takes the most interest, and when he has found it out, tact will readily assist him in opening up the latent powers of the mind, like dry wood which needs only the fire of a match to make a big blaze. If the child delights in nature, engage with him for a time in the pursuit in which he finds pleasure. The teacher should, by all means, first gain the confidence of the pupil. This is essential, for it is from that confidence—that is, mutual trust between teacher and pupil—that success is to come. The more you ingratiate yourself into the favor of the child, the more readily will he take up the task assigned. No particular rule can be laid down for arousing a pupil. But, in general, the first thing is to have and hold his confidence; let him see you are interested in him, and he will soon respond with a will that will repay you for all the trouble thus expended.

Above all, show your confidence in the child's capabilities, however small they may be; enter into his struggles with sympathy, and instil your spirit into him. It is the teacher's spirit in the child that overcomes the difficulties and dispels all the darkness and fear from his mind. Make the child feel that work is play and there is pleasure in it.

Even the dullest child yearns to win the approval of his teacher. There is no stronger stimulus than a word of praise.

The secret of Napoleon's success was his faculty of catching short naps while a battle was going on around him, and he was better prepared, when he awoke, to give new orders. If a teacher wishes to be repaid for his efforts to teach a child, he must avoid overworking or keeping him at the same thing too long. Give him rest at intervals, and, at the same time, see that he has something to do for diversion or recreation.

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The hardest part of the teacher's work is when the class is divided into two grades or more. This work is so complicated, and the tax on the attention of the teacher so great, that he is obliged constantly to exercise his ingenuity and be "on the go." How to give proper attention to each of the pupils under such circumstances is a problem that puzzles hundreds of teachers. The grave question comes with great force: What should be done to keep the different grades all at work at the same time? The problem is a simple one if the teacher sticks to the right principles. Things, when one makes up his mind to take them as they come, are not so hard to do as they appear. This applies to teaching a class of many grades.

The first requisite to success is system. A teacher's method must be one and the same, and if he has assistance from more advanced pupils in teaching those less advanced, all must work in co-operation with him. With system dull pupils are no burden; the work is, indeed, rendered easier and more pleasant.

Teaching, especially backward pupils, in different grades is wholly a work of details, and one that requires thoroughness and close attention. The economy of labor and vigor in performing the necessary work is of as much importance as knowing how to teach things at the right time and in the right way.

There are advantages in a multigraded class that a bright class has not. The pupils receive more individual instruction and discipline. They are forced to throw themselves upon their own resources, to act and think for themselves.

Backward pupils should be by themselves in small classes of five or eight. Better have two or more divisions in a large class of dull pupils than attempt to keep them together in one, which is almost impossible. True, it is to the advantage of the dull to have bright pupils in the same class with them. But there are always "bright" pupils in a dull class.

The education of the backward would be on a firmer basis if they could remain in the same class and under the same teacher at least three years.

It has been my lot to teach a class consisting of from four to six divisions ; and to pay proper attention to all I have been obliged to resort to different expedients. When I am teaching one division I manage to keep the others at work by giving each pupil some task to do according to his abilities. Otherwise, idle hands will get into mischief.

If one pupil begins to fall behind his class, or rather grade, it is a mistake to let him remain in it too long. It is often the case that several drop from the different grades in course of time and thus one grade becomes part of another.

The exercises should be varied as much as possible. Practice in penmanship half an hour or more three times a week not only trains the hand but also affords relaxation.

As soon as they are able to write short sentences dull pupils should have instruction in simple addition the first year ; this helps to relieve the tedium of the hour. It may be made more practical and interesting by utilizing colored sticks, blocks, crayons, pictures of people, animals, birds, etc., in teaching addition as far as ten. When they have some idea of what it means to put two or more numbers together, I hang up on the wall written charts, a large number of which I have on hand. On one chart is written : $1 + 1 = ?$ $1 + 1 + 1 = ?$ $1 + 1 + 1 + 1 = ?$ etc. Another contains the following : $2 + 1 = ?$ $2 + 1 + 1 = ?$ $2 + 1 + 1 + 1 = ?$ etc. As the pupils progress it would be well to teach them numerals as far as one hundred, but examples in addition should be limited to ten until the pupils are able to do any sums quickly and without stopping to think.

Another diversion is copying from the black-board

lessons prepared by the teacher to study in the evening. Every pupil should be provided with a blank book for the purpose. There is always something in such lessons that attracts the attention and arouses the interest of the pupils. I keep separate composition books containing lessons and exercises in language for all divisions, which saves labor and time in preparing. On the walls are also suspended language charts, where the children can look up sentences to express their wants without asking the teacher to help them. There are many other little devices that go to the make-up of a good, interesting day's work.

I do not use any text-books until the pupils have been thoroughly drilled in verbs, prepositions, adjectives, etc., which usually takes a little more than a year. When they begin to learn Miss Sweet's First Lessons in English there is hardly anything in it that they do not understand; and they appreciate it all the more.

Experiments with both tenses (present and past) and the observation of results have strengthened my opinion that the past tense is preferable for beginners of slow intellect. The present verbs, *want, like, have, is, am*, etc., are all that are necessary for a beginning pupil's limited conception. Imperative forms may be introduced as circumstances require. No signs should be used when the teacher can make himself understood by means of the manual alphabet.

For teaching dull pupils, three rules may be laid down:

1. The teacher must not allow himself to be tied fast to any method or system. He must have the courage and confidence to strike out for himself, hewing new paths, and forming methods of his own.

2. The teacher's work is lost unless he trains his pupils to be painstaking, self-reliant, and independent. This is the most important part of the work.

3. Common sense is the best teacher.

I have been teaching dull pupils for some eighteen years,

and the points I have given in this paper are the result of long experience in dealing with this class of children—a class that is found in every school and that requires special methods and special efforts to develop. They are too often neglected and suffered to depart but little better than when they first entered the school. Many would have been saved to more honorable lives and more valuable citizenship if their teachers had taken a little more pains with them. Teaching such pupils is really the post of honor in any school. Bright, well-endowed pupils may make satisfactory progress under indifferent instruction, but with dull children good teaching is a *sine qua non*.

It is a matter of regret that there is no record of the work of early teachers of the deaf, which might have been of assistance to us and by which the difficulties incident to teaching dull pupils might have been reduced to a minimum. Would not it be a good plan for those who have attained success with such pupils to prepare papers on the subject and explain their methods through the *Annals*? In this way much may be accomplished to bring the system of instruction nearer to perfection. It is only through our own efforts and co-operation that this can be done. The faint-hearted would take courage and go on with the work with renewed energy and better results.

The words of warning, "Take heed that ye despise not one of these little ones," and the loving encouragement, "Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me," should prove powerful incentives to the best possible fulfilment of the teacher's high position, even when this is found among the smallest and most ignorant of pupils.

THEODORE A. KIESEL,

Instructor in the Kendall School, Washington, D. C.

A SPELLING TEST.—II.

IN the *Annals* for November I described a spelling test to which pupils of various schools of Philadelphia were subjected, and I gave tabulated results in the cases of 604 pupils of the public schools and of 148 pupils of the Pennsylvania Institution for the Deaf and Dumb. These results show that when each is confined to his own vocabulary, the deaf child makes fewer mistakes in spelling than his hearing brother does. It is true that the deaf child has the smaller vocabulary ; but it is also true that the child with the largest vocabulary is generally the one who makes the fewest mistakes in spelling. Yet the knowledge of this superiority affords small comfort when the deaf pupil writes *amzed* for *amazed*, *eletgram* for *telegram*, *yorrning clory* for *morning-glory*, *glasseye* for *eyeglass*, *cruntle* for *turtle*, and insists that the difference between *bowel* and *bowl* is too slight to justify a sharp reprimand after the visitors have gone.

The 148 pupils of the Pennsylvania Institution, to whom the test in spelling was given, wrote 22,360 words, 151 each on the average. The total number of mistakes was 592. The actual number of words misspelled was 346, and these were misspelled in 437 ways. For instance, the word *handkerchief* was probably written incorrectly by twenty-five pupils, and it was misspelled in eight different ways.

Before I had examined the lists of words I felt sure that the orthography would reveal the method by which the pupil had been taught. I expected the manual pupils to be guilty of more inversions, or transpositions, of letters and of parts of compound words ; as, *forg* for *frog*, and *tieneck* for *necktie* ; and the oral pupils, I thought, would show mistakes in homophonous words from the lips, in obscure sounds, and in attempts to spell according to the appearance of the word on the lips. In the

Among mistakes in the formation of the plurals were *churchs*, *dressses*, *geeses*, *mouses*, *mens*, *monkiess*, *ozes*, *potatos*, *peases*, *piges*, *reines*, *watches*, and *whippes*. Such forms as *teeth-brush* and *teeth-powder* were written more than once.

Fully forty per cent. of the mistakes were in the spelling of twenty-five common words. Here is the list, together with the various ways of spelling :

Bracelet, brachet, breacelet, bracet.

Calendar, calender, caldener, ceniader, clendar, celendar.

Crayon, caryon, crayer.

Ceiling, celing, cealing, ciling.

Curtain, curatin, crustian.

Daisies, diasies, daises.

Envelope, evelope, envlope.

Electric, electric, eletric, elecitic, elictic.

Eraser, earser, erase, erasser.

Fork, forck, frok.

Frog, forg, frong.

Handkerchief, handkerchife, handerchief, handkerchif, handherchief, handkerchalf, handkierief, handercheefe, handkerchf.

Hospital, hostipal, hospiatial.

Needle, neadle, neddle, nedle.

Policeman, pliceman, ploiceman, policeman.

Saucer, scause, scauer, sucascer, sacurcer, sauce, sucare, saucere.

Scarf, scraf, scare.

Scissors, siciissors, sicessors, scisses, scissor.

Squirrel, squarrel, squirrel.

Spectacles, spectecles, spectrales, spectles, spectals.

Strawberry, strawberrie, scrawberry, strawberridge, strawcherry.

Thermometer, themoter, thermonter, thermometer, thermonter.

Thumb, thumble, thumbbe, thunb, thumbler.

Towel, towele, toel, towell.

Vinegar, vinger, vingar, vingear, vinigar.

One day, about a year ago, I gave my pupils a story to reproduce from memory. The story contained the word *trot*,—and every pupil wrote it *tort*. The word was new to them; but, according to the law of probabilities, *trot* should have occurred as often as *tort*. Why should thirty pupils have made the same mistake, not one writing the word correctly? There are certain words that the pupils seem destined to spell incorrectly. I have never known

a deaf pupil in the printing-office to follow copy when he comes to the word *trial*. He will invariably change it to *trail*. The termination *ian* is one peculiarly offensive to the deaf; they persist in changing it to *ain*. Just why I don't know, unless because *ai* is met more frequently than *ia*, and is more strongly impressed upon the memory of the child. If any one has a more satisfactory explanation I should be glad to hear it.

HARRIS TAYLOR,
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THE FIFTEENTH MEETING OF THE CONVENTION.

GALLAUDET COLLEGE,
WASHINGTON, D. C., Dec. 13, 1897.

*To the Members of the Convention of
American Instructors of the Deaf:*

It has been decided by the Standing Executive Committee of the Convention to accept the very cordial invitation of the authorities of the Ohio Institution for the Deaf and Dumb, to hold the next meeting of the Convention at Columbus, and within the walls of the Ohio Institution.

The day fixed for the assembling of the Convention is Thursday, July 28, 1898.

Particulars as to the probable duration of the meeting, the arrangement of the program, etc., will be published later.

With cordial greetings from the Committee to the members of the Convention, and to all engaged in the work of educating the deaf, or interested therein, the hope is expressed that the Fifteenth Meeting of the Convention may surpass, in numbers and in interest, all that have preceded it.

EDWARD M. GALLAUDET,
President of the Convention.

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF. 1897-'98.
A.—PUBLIC SCHOOLS (NOT INCLUDING DAY-SCHOOLS) IN THE UNITED STATES.

	Name.	Location.	Date of open- ing.	Chief Executive Officer.
1	American School for the Deaf	Hartford, Conn.	1817	Job Williams, M. A., L. H. D., Principal.
2	New York Institution for the Instruction of the Deaf and Dumb.	New York, N. Y. (a)	1818	Enoch Henry Currier, M. A., do.
3	Pennsylvania Institution for the Deaf and Dumb	Mt. Airy, Philadelphia, Pa.	1820	A. L. E. Crouter, M. A., L. L. D., Sup't.
4	Kentucky Institution for the Education of Deaf-Mutes.	Danville, Boyle Co., Ky.	1823	Augustus Rogers, M. A., Sup't.
5	Ohio Institution for the Education of the Deaf and Dumb.	Columbus, Ohio.	1829	J. W. Jones, M. A., do.
6	Virginia Institution for the Education of the Deaf and Dumb and of the Blind.	Staunton, Va.	1830	William A. Howles, Principal.
7	Indiana Institution for the Education of the Deaf and Dumb	Indianapolis, Ind.	1844	Richard Otto Johnson, Superintendent.
8	Tennessee Deaf and Dumb School.	Knoxville, Tenn.	1845	Thomas L. Moses, Principal.
9	North Carolina Institution for Education of the Deaf and Dumb and the Blind.	Raleigh, N. C.	1846	John E. Ray, M. A., Principal.
10	Illinois Institution for the Education of the Deaf and Dumb	Jacksonville, Ill.	1846	Joseph C. Gordon, M. A., Ph. D., Sup't.
11	Georgia School for the Deaf	Cave Spring, Ga.	1846	Wesley O. Connor, Principal.
12	South Carolina Inst'n for the Education of the Deaf and the Blind.	Cedar Spring, S. C.	1849	Newton F. Walker, Superintendent.
13	Missouri School for the Deaf and Dumb	Fulton, Callaway Co., Mo.	1851	Noble B. McKee, M. A., do.
14	Louisiana Institution for the Education of the Deaf and Dumb	Baton Rouge, La.	1852	John Jastranski, M. D., do.
15	Wisconsin School for the Deaf	Delavan, Walworth Co., Wis.	1852	John W. Swiler, M. A., do.
16	Michigan School for the Deaf	Flint, Mich.	1854	Francis D. Clarke, M. A., C. E., do.
17	Mississippi Institution for the Education of the Deaf and Dumb	Jackson, Miss.	1854	J. R. Doherty, M. A., do.
18	Iowa School for the Deaf.	Council Bluffs, Iowa.	1855	Henry W. Rothert, Superintendent; G. L. Wyckoff, Principal.
19	Texas Deaf and Dumb Asylum.	Austin, Texas.	1857	A. T. Rose, Superintendent.
20	Columbia Institution for the Deaf and Dumb	Kendall Green, Washington, D. C.	1857	E. M. Gallaudet, Ph. D., L. L. D., Pres't.
21	A. Kendall School for the Deaf.	do.	1857	James Denison, M. A., Principal.
22	B. Gallaudet College.	do.	1864	E. M. Gallaudet, Ph. D., L. L. D., Pres't.
23	Alabama Institute for the Deaf.	Talladega, Ala.	1858	Joseph H. Johnson, M. A., Principal.
24	California Institution for the Education of the Deaf and Dumb and the Blind.	Oakland, Cal.	1860	Warring Wilkinson, M. A., L. H. D., do.
25	Kansas School for the Deaf	Berkeley, Kansas.	1861	A. A. Stewart, Superintendent.
26	Le Content St. Mary's Inst'n for the Improved Instruction of Deaf-Mutes.	Burlington, N. Y. (26 Edward St.) (b)	1861	Sister Mary Anne Burke, Principal.
27	Minnesota School for the Deaf	Faribault, Rice Co., Minn.	1863	James N. Tate, M. A., Sup't.
28	Institution for the Improved Instruction of Deaf-Mutes.	New York, N. Y. (904-922 Lexington Av.)	1863	D. Greene, Principal.
29	Clarke School for the Deaf	Northampton, Mass.	1867	Miss Caroline A. Yale, L. L. D., Principal.
30	Arkansas Deaf-Mute Institute.	Little Rock, Ark.	1868	Frank B. Yates, Superintendent.
31	Maryland School for the Deaf and Dumb.	Frederick City, Md.	1868	Chas. W. Ely, M. A., Principal.

Schools for the Deaf in the United States, 1897-'98. 47

30	Nebraska Institute for the Deaf and Dumb	Omaha, Neb.	1869	H. E. Dawes, Principal.
31	St. Joseph's Institute for the Improved Instruction of Deaf-Mutes	Fordham, N. Y., (c)	1869	Ellen E. Cloak, President.
32	West Virginia Schools for the Deaf and the Blind	Romney, Hampshire Co., W. Va.	1870	James T. Rucker, Principal.
33	Mythic Oral School for the Deaf	Mythic, Conn.	1870	Mrs. Ellis Scott, Principal.
34	Oregon School for Deaf-Mutes	Salem, Oregon	1870	Rev. P. S. Knight, Ph. D., Supt.
35	Maryland School for the Colored Blind and Deaf	Baltimore, Md. (649 W. Saratoga St.)	1872	Frederick D. Morrison, M. A., do.
36	Colorado School for the Deaf and the Blind	Colorado Springs, El Paso Co., Colo.	1874	D. C. Dudley, M. A., do.
37	Central New York Institution for the Instruction of the Deaf and Dumb	Rome, Oneida Co., N. Y.	1875	Edward Beverly Nelson, M. A., Principal.
38	Western Pennsylvania Institution for the Instruction of the Deaf-Mutes	Edgewood Park, Allegheny Co., Pa.	1876	William N. Burr, M. A., Principal.
39	Western New York Institution for Deaf-Mutes	Rochester, N. Y. (945 N. St. Paul St.)	1876	Z. F. Westervelt, LL. D., Supt.
40	Maline School for the Deaf	Portland, Me. (79-85 Spring St.)	1876	Mrs. Elizabeth R. Taylor, Principal.
41	Rhode Island Institute for the Deaf	Providence, R. I. (184 East Ave.)	1876	Miss Laura Del. Richards, Principal.
42	New England Industrial School for Deaf-Mutes	Beverly, Mass.	1879	Miss Nellie H. Sweet, do.
43	South Dakota School for Deaf-Mutes	Sioux Falls, Minnehaha Co., South Dak.	1880	James Simpson, Superintendent.
44	Pennsylvania Oral School for the Deaf	Scranton, Pa.	1883	Miss Mary B. C. Brown, Principal.
45	New Jersey School for Deaf-Mutes	Trenton, N. J.	1883	Weston Jenkins, M. A., Principal.
46	Northern New York Institution for Deaf and Dumb	Ogden, Utah	1884	Frank W. Metcalf, D. B., Supt.
47	Florida Institute for the Deaf and the Blind	Malone, Franklin Co., N. Y.	1884	Edward C. Rider, Principal.
48	New Mexico School for the Deaf and Dumb, and the Blind	St. Augustine, Fla.	1885	Rev. Frederick Pasco, Superintendent.
49	Washington School for Defective Youth	Santa Fe, N. M.	1885	Lars M. Larson, B. A., Superintendent.
50	Deaf, Dumb, and Blind Institute for Colored Youths	Vancouver, Wash.	1886	James Watson, Director.
51	Albany Home School for the Oral Instruction of the Deaf	Austin, Tex.	1887	W. H. Holland, Superintendent.
52	Deaf and Dumb Asylum (of North Dakota)	Pine Hills, Albany, N. Y.	1889	Miss Mary McGuire, Prin. and Supt.
53	Home for the Training in Speech of Deaf Children before they are of School Age	Devils Lake, Ramsey Co., North Dak.	1890	Dwight F. Bangs, Supt.
54	Montana Deaf and Dumb Asylum	Philadelphia, Pa. (d)	1892	Miss Mary S. Garrett, Principal.
55	Public Schools (not including Day-Schools).	Boulder, Montana	1893	E. S. Tillinghast, M. A., Supt.
56	Denominational and Private Schools. (See page 56.)	Morganton, Burke Co., N. C.	1894	E. McKay Goodwin, M. A., Supt.
57	Schools in the United States.			

(c) This Institution has three branches; one situated at Westchester, another at Fordham (772 East 188th Street), and another at Brooklyn (113 Buffalo Ave.).

(d) West 163d Street and Grand Boulevard.

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1897-'98—Continued.
PUBLIC SCHOOLS (NOT INCLUDING DAY-SCHOOLS) IN THE UNITED STATES—Continued.

Name.	Methods of Instruction.*	Industries Taught.*	NO. OF PUPILS.					PRESENT NUMBER OF INSTRUCTORS.							
			PRESENT NOVEMBER 10, 1897.					Total have received instruction.							
			Within the year 1897.**	Total.	Male.	Female.	Taught Speech +	A.†	B.†	C.†	Total ††	Male.††	Female.††	Deaf.	Articulate.††	Industrial.
1 American School.....	Combined.	Cab., Dr., Sh.....	186	160	93	67	116	10	5	2,674	23	9	3	5	4
2 New York Institution.....	Combined.	Art., Bak., Cab., Car., Ch., Dr., Ga., Gl., Hor., Pa., Pr., Ta., Ty., Wc.....	465	390	257	133	390	101	17	3,675	41	16	25	5	24
3 Pennsylvania....do. { Oral Dep't.	Manual.	Bk., Car., Cl., Dr., Gl., Kn., Pa., Pl., Pr., Sh., Sh., St., Ta.....	439	414	203	211	414	414	..	2,765	57	16	41	1	43
4 Kentucky Institution.....	Combined.	Car., Ga., Pr., Se., Sh.....	125	95	60	35	..	..	..	1,396	29	12	17	5	9
5 Ohio Institution.....	Combined.	Bo., Car., Dr., Pr., Sh., Ta.....	393	331	173	158	163	87	13	2,877	39	15	24	8	11
6 Virginia Institution.....	Combined.	Bar., Car., Pr., Sh., Ta.....	630	462	253	209	148	114	34	2,877	39	15	24	8	11
7 Indiana Institution.....	Combined.	Bak., Cab., Car., Cl., Dr., Fa., Fl., Pa., Pr., Se., Sh., Wc., Wt.....	115	121	67	54	16	13	..	2,775	15	12	3	0	1
8 Tennessee School.....	Combined.	Car., Pr., Sh.....	364	315	178	137	102	102	..	2,107	32	14	18	7	9
9 North Carolina Institution.....	Combined.	Sec., Sh.....	292	225	127	98	56	44	12	938	14	7	3	3	2
10 Illinois Institution.....	Combined.	Art., Bak., Cab., Car., Cl., Dr., Ga., Gl., Pa., Pap., Po., Ph., Pl., Pr., Sh., Wc., Wt.....	94	84	47	37	15	15	..	1,290	9	4	6	4	1
11 Georgia School.....	Combined.	Car., Ga., Sh.....	589	499	320	179	275	186	11	2,665	49	17	32	11	17
12 South Carolina Institution.....	Combined.	Car., Pr., Se., Sh., Wc.....	168	139	77	62	36	32	..	377	10	4	6	4	3
13 Missouri School.....	Combined.	Ba., Cab., Car., Dr., Ga., Pr., Se., Sh., Ta., Wc., Wt.....	121	99	57	42	32	32	..	1,480	31	14	17	8	5
14 Louisiana School.....	Combined.	Car., Pr., Se., Sh.....	403	345	196	149	85	52	..	..	..	..	..	..	..
15 Wisconsin School.....	Combined.	Bak., Cab., Ch., Dr., Man., Pr., Sh.....	95	..	..	..	..	..	..	10	5	5	2	3	4
16 Michigan School.....	Combined.	Cab., Car., Dr., Pa., Pr., Sh., Ta.....	223	191	102	93	100	100	..	1,094	22	13	9	4	9
17 Mississippi Institution.....	Combined.	Cab., Car., Dr., Pa., Pr., Sh., Ta.....	454	401	208	193	170	103	..	1,451	39	11	28	9	10
18 Iowa School.....	Combined.	Cab., Car., Pr., Se., Sh., Ta.....	123	..	..	..	..	..	..	1,500	13	7	6	4	2
19 Texas Asylum.....	Combined.	Bak., Br., Car., Ch., Dr., Pr., Sh., Ta.....	969	298	170	128	94	38	3	25	13	12	9	4	6
20 Columbia Inst. { Kendall School	Combined.	Art., Bo., Car., Pr., Se., Sh., Ta.....	298	256	143	113	74	64	10	733	26	11	15	4	6
21 Alabama Institute.....	Combined.	Cab., Dr., Se.....	54	49	27	22	38	..	..	429	8	4	4	4	3
22 Kansas Institution.....	Combined.	Bl., Cab., Pr., Sh.....	132	92	52	40	70	..	..	316	20	14	6	3	9
23 Kansas Institution.....	Combined.	Br., Wood-working.....	163	123	65	58	60	60	..	500	15	9	6	3	7
24 Le Centre's St. Mary's Inst.....	Combined.	Ba., Cab., Car., Ch., Ga., Gl., Pr., Se., Sh., Wc., Wt.....	170	156	94	63	90	..	..	531	16	10	6	3	2
25 Minnesota School.....	Combined.	Ch., Dr., Pr., Sh., Ta., Wc.....	303	232	126	106	23	..	..	887	26	7	19	8	4
26 Minnesota School.....	Combined.	Cab., Car., Dr., Pr., Sh.....	154	139	68	71	123	10	7	645	20	2	13	1	12
27 Minnesota School.....	Combined.	Cab., Car., Dr., Pr., Sh.....	261	217	129	88	90	52	..	781	23	10	13	5	5

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1897-'98—Continued.
PUBLIC SCHOOLS (NOT INCLUDING DAY-SCHOOLS) IN THE UNITED STATES—Continued.

Name.	Vacation.	How Supported.	Value of buildings and grounds.	Expenditure last fiscal year.		No. vols. in library.
				For support.	For buildings and grounds.	
1 American Asylum.....	Last Wed. in June to second Wed. in Sept.....	Endowment and N. E. States.....	\$200,000	\$112,216	\$0,834	2,000
2 New York Institution.....	Second Tuesday in June to second Wed. in Sept.....	State, counties, and pay pupils.....	500,000	133,940	14,600	7,469
3 Pennsylvania do.....	Last Wed. in June to second Wed. in Sept.....	State endowment, and pay pupils.....	1,000,000	54,366	400	6,500
4 Kentucky do.....	First Wed. in June to last Wednesday in Sept.....	State.....	140,000	90,000		2,000
5 Ohio do.....	Second Wed. in June to second Wed. in Sept.....	do.....	750,000	23,790		3,000
6 Virginia do.....	Second Wed. in June to first Wed. in Sept.....	do.....	250,000	2,897		700
7 Indiana do.....	Second Wed. in June to fourth week in Sept.....	do.....	530,460	57,588	10,086	3,201
8 Tennessee School.....	Second Wed. in June to second Fri. in Sept.....	do.....	150,000	32,665	1,000	875
9 North Carolina Institution*.....	Second Wed. in June to second Wed. in Sept.....	do.....	37,000	14,000	7,000	1,000
10 Illinois Institution.....	Third Wed. in June to third Wed. in Sept.....	do.....	455,000	23,229		11,478
11 Georgia School.....	Last Wed. in June to first Wed. in Sept.....	do.....	85,000	58,000	7,000	1,200
12 South Carolina Institution*.....	Second Wed. in June to second Wed. in Oct.....	State and pay pupils.....	58,000	20,093	1,790	880
13 Missouri School.....	June 1 to Oct. 1.....	State.....	310,000	61,022		1,825
14 Louisiana do.....	Second Wed. in June to second Wed. in Sept.....	do.....	300,000	16,000	9,000	400
15 Wisconsin School.....	Thurs. after June 7 to third Wed. in Sept.....	do.....	126,060	45,344	10,500	2,400
16 Michigan do.....	Third Wed. in June to first Mon. in Oct.....	do.....	426,255	64,482	8,263	3,509
17 Mississippi Institution.....	June 30 to Oct. 1.....	do.....	90,000	16,580	16,000	500
18 Iowa School.....	1st Wed. in June to 1st Wed. in Sept.....	do.....	400,000	61,900	17,100	2,800
19 Texas Asylum.....	Wed. before last Wed. June to Thurs. before last Thurs. Sept.....	United States and pay pupils.....	225,000	43,114	5,765	900
20 Columbia Institution.....	June 10 to Sept. 10.....	State.....	700,000	70,851		4,300
21 Alabama do.....	Second Wed. in June to fourth Wed. in August.....	do.....	100,000	30,222	15,000	2,000
22 California do.....	Second Wed. in June to second Wed. in Sept.....	do.....	550,000	60,176	6,486	2,100
23 Kansas do.....	Wed. before last week in June to first Mon. in Sept.....	State, counties, and pay pupils.....	206,000	41,345		724
24 Le Centre St. Mary's Inst.....	First Wed. in June to second Wed. in Sept.....	State.....	154,560	30,719	40,720	1,778
25 Minnesota School.....	Third Wed. in June to first Wed. in Sept.....	State, counties, and pay pupils.....	271,425	43,455		1,105
26 N. Y. Inst. for Imp'v'd Ins'n.....	Forty weeks after third Mon. in Sept. to third Mon. in Sept.....	Endowment, N. E. States, and pay pupils.....	390,000	67,924	30,000	2,366
27 Clarke School.....			133,140	43,766		

Schools for the Deaf in the United States, 1897-'98. 51

28	Arkansas Institute.....	Second Wed. in June to first Wed. in Oct.....	State.....	100,000	29,590	500	900
29	Maryland School.....	Third Wed. in June to second Wed. in Sept.....	do.....	255,000	25,991	621	2,725
30	Nebraska Institute.....	Middle of June to middle of Sept.....	do.....	120,000	37,420	1,300	1,300
31	St. Joseph's Institute (N. Y.).....	Last Fri. in June to second Mon. in Sept.....	State, counties, and pay pupils.....	509,236	92,994	94,458	1,860
32	West Virginia School*.....	Forty weeks after second Wed. in Sept. to second Wed. in Sept. Twelve weeks.....	State.....	90,000	30,000	1,000	1,000
33	Mystic Oral School.....	May 1 to first Wed. in Sept.....	State and tuition fees.....	30,000	12,000	.....	275
34	Oregon School.....	June 25 to Sept. 10.....	do.....	36,000	10,788	.....	150
35	Md. School for Colored*.....	First Wed. in June to first Wed. in Sept.....	do.....	223,000	27,125	.....	650
36	Colorado Institute.....	Second week in June to third Wed. in Sept.....	State and counties.....	135,000	39,612	.....	600
37	Central N. Y. Institution.....	Last Wed. in June to first Wed. in Sept.....	State and voluntary contributions.....	257,137	50,134	10,921	2,848
38	Western Penn'a Institution.....	Forty-two w'ks after first Mon. in Sept. to first Mon. in Sept.....	State, counties, and pay pupils.....	130,000	46,646	6,388	7,000
39	Western New York Institution.....	Middle of June to second Mon. in Sept.....	State.....	30,000	14,000	5,000	600
40	Maine School.....	Third Fri. in June to second Mon. in Sept.....	do.....	61,000	15,000	.....	142
41	Rhode Island Institute.....	Third Wed. in June to second Tues. in Sept.....	Voluntary contributions and State.....	11,000	3,000	.....	.....
42	N. E. Industrial School.....	Second Wed. in June to second Wed. in Sept.....	State.....	81,675	12,250	.....	175
43	South Dakota School.....	June 16 to Sept. 1.....	do.....	160,000	16,237	1,313	85
44	Penna. Oral School.....	Second Wed. in June to second Wed. in Sept.....	State and pay pupils.....	100,000	40,000	.....	1,800
45	New Jersey School.....	Second Mon. in June to Oct. 1.....	State and counties.....	200,000	21,636	7,350	75
46	Utah School.....	Third week in June to first week in Oct.....	State.....	91,881	19,936	9,912	352
47	Northern N. Y. Institution.....	Thurs. after last Wed. in May to last Wed. in Aug.....	Territory.....	15,000	8,564	.....	100
48	Florida Institute*.....	June 15 to Sept. 15.....	do.....	100,000	.....	.....	250
49	New Mexico School*.....	Third Wed. in June to second Wed. in Sept.....	State, counties, and pay pupils.....	37,500	.....	.....	.....
50	Washington State School*.....	Second Wed. in June to second Wed. in Sept.....	State.....	23,800	9,550	700	300
51	Texas Institute for Colored*.....	None.....	State and pay pupils.....	58,000	13,497	3,309	.....
52	Albany Home School.....	Second Wed. in June to second Wed. in Sept.....	State.....	32,757	.....	3,208	.....
53	North Dakota School.....	Second Wed. in June to second Wed. in Sept.....	do.....	155,000	35,000	.....	1,250
54	Home for Training in Speech.....	Second Wed. in June to second Wed. in Sept.....	.....	.....	.....	.....	.....
55	Montana School*.....	Second Wed. in June to second Wed. in Sept.....	.....	.....	.....	.....	.....
56	North Carolina School.....	.....	.....	.....	.....	.....	.....
56	Public Schools, (See page 54.)	.....	.....	.....	.....	.....	.....
17	Denominational and Private Schools, (See page 57.)	.....	.....	.....	.....	.....	.....
96	Schools in the United States.	.....	.....	.....	.....	.....	.....

* Contains a department for the blind also, the expenses of which are included in the statement of expenditures.

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1897-'98—Continued.
B.—PUBLIC DAY-SCHOOLS IN THE UNITED STATES.

Name.	Location.	Date of opening.	Chief Executive Officer.
1 Horace Mann School for the Deaf.....	Boston, Mass. (175 Newbury St.).....	1869	Miss Sarah Fuller, Principal.
2 Wicker Park Public Day-School for the Deaf.....	Everett Ave., near Robey St.	(a)	
3 Hartigan Public Day-School for the Deaf.....	Armore Ave., near Root St.	1879	
4 Prescott Public Day-School for the Deaf.....	Cor. Wrightw'd & Ash'd Ave.	1879	Miss Mary McCowen, Sup'g Principal.
5 Monroe Street Public Day-School for the Deaf.....	Chicago, Ill. 187 Monroe St.		
6 Yale Public Day-School for the Deaf.....	Cor. 70th St. and Yale Ave.		
7 Lyman Trumbull Public Day-School for the Deaf.....	Cor. Sedg'k & Division Sts.	1897	
8 Kozminski Public Day-School for the Deaf.....	Cor. 54th St. & Ingleside Av.	1897	
9 Cincinnati Public Day-School for the Deaf.....	Cincinnati, Ohio, (9).....	1897	Miss Caroline Fesenbeck, Principal.
10 St. Louis Public Day-School for the Deaf.....	St. Louis, Mo., (c).....	1875	Jas. H. Clond, M. A., Principal.
11 Milwaukee Public Day-School for the Deaf.....	Milwaukee, Wis., (d).....	1878	Miss Frances Wetstein, Principal.
12 Cincinnati Oral School for the Deaf.....	Cincinnati, Ohio, (b).....	1883	Miss Virginia A. Osborn, Principal.
13 Cincinnati Day-School for the Deaf.....	Cincinnati, Ohio, (b).....	1886	Paul Lange, M. A., Principal.
14 Evansville Public Day-School for the Deaf.....	Evansville, Ind., (Cor. 7th and Vine Sts.)	1890	Miss Katie A. Murphy, Principal.
15 Wausau Day-School for the Deaf.....	Wausau, Wis.	1890	Miss Katherine King, Principal.
16 Cleveland Day-School for the Deaf.....	Cleveland, Ohio, (f).....	1892	Miss Ada S. Locke, Principal.
17 Manitowoc Day-School for the Deaf.....	Manitowoc, Wis., (North 8th St.).....	1893	Miss Ray Kriba, Principal.
18 Sheboygan Day-School for the Deaf.....	Sheboygan, Wis.	1894	Miss M. Lizzie Donohoe, Principal.
19 Eau Claire Day-School for the Deaf.....	Detroit, Mich., (g).....	1895	Miss Jennie C. Smith, Principal.
20 Fond du Lac School for the Deaf.....	Fond du Lac, Wis.	1895	Miss Anna Sullivan, Principal.
21 Marinette School for the Deaf.....	Marinette, Wis., (1523 Main St.).....	1895	Miss Frances O. Ellis, Principal.
22 Oshkosh Day-School for the Deaf.....	Oshkosh, Wis.	1895	Miss Katharine Grimes, Principal.
23 Public Day-Schools in the United States.			

(a) The first Public Day-School for the Deaf in Chicago was opened in 1875 in a rented building on Van Buren Street.

(c) Cor. Ninth and Wash Streets.

(d) Cor. Seventh and Prairie Streets.

(e) Court Street, west of John Street.

(f) Calumet Ave., near Grand River.

(g) Cor. Rockwell and Bond Streets.

Schools for the Deaf in the United States, 1897-'98. 53

NUMBER OF PUPILS.			PRESENT NOV. 10, 1897.										PRESENT NUMBER OF INSTRUCTORS.						
Name.	Methods of Instruction.*	Industries Taught.*	Within the year 1897.**	Total.			Female.			Taught Speech.†			Total have received instruction.	Total.	Male.††	Female.††	Deaf.	Artistic.†	Industrial.
				Total.	Male.	Female.	A.†	B.†	C.†										
1 Horace Mann School.....	Oral	Art, Ck., Cl., Fr., Se, Sl., and use of tools,	126	109	55	54	109	109	.....	436	16	1	14	1	1	13	3	
2 Wicker Park School.....	Combined	Drawing.....	17	13	7	6	13	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
3 Hartigan School.....	Combined	Drawing.....	12	9	5	4	9	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
4 Prescott School.....	Combined	Drawing.....	9	9	5	4	8	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
5 Monroe St. School.....	Combined	Drawing.....	40	19	11	8	18	18	.....	.....	.....	.....	.....	.....	.....	.....	.....
6 Yale School.....	Oral	Drawing.....	42	36	18	18	36	36	.....	44	4	1	2	1	2	1	2	
7 Lyman Trumbull School.....	Oral	Drawing.....	17	16	8	8	16	16	.....	17	1	1	2	1	2	1	2	
8 Kozminski School.....	Oral	Drawing.....	8	8	6	3	8	8	.....	8	1	1	2	1	2	1	2	
9 Cincinnati Public School.....	Manual	Sewing.....	8	7	4	3	7	7	.....	125	1	1	1	1	1	1	1	
10 St. Louis School.....	Combined	None.....	47	36	20	16	33	33	.....	206	4	1	3	2	1	1	1	
11 Milwaukee School.....	Oral	Art., Car., Cl., Fr., Se, Sl., Wc.....	63	48	26	22	48	48	.....	132	10	10	10	10	10	10	10	
12 Cincinnati Oral School.....	Oral	Se.....	32	27	18	9	27	27	.....	66	4	4	4	4	4	4	4	
13 Evansville School.....	Combined	None.....	13	11	6	5	3	3	.....	50	1	1	1	1	1	1	1	
14 Wausau School.....	Oral	None.....	13	10	7	3	10	10	.....	19	3	3	3	3	3	3	3	
15 Cleveland School.....	Combined	None.....	25	25	16	9	22	17	.....	53	2	2	2	2	2	2	2	
16 Manitowoc School.....	Oral	None.....	11	10	6	4	10	10	.....	12	1	1	1	1	1	1	1	
17 Sheboygan School.....	Oral	None.....	7	6	5	1	6	6	.....	9	1	1	1	1	1	1	1	
18 Detroit School.....	Oral	None.....	15	10	5	5	10	10	.....	23	1	1	1	1	1	1	1	
19 Eau Claire School.....	Oral	Manual Training.....	7	5	3	3	5	5	.....	8	3	3	3	3	3	3	3	
20 Fond du Lac School.....	Oral	Manual Training.....	6	6	3	3	6	6	.....	10	3	3	3	3	3	3	3	
21 Marinette School.....	Oral	None.....	7	6	3	3	6	6	.....	9	1	1	1	1	1	1	1	
22 Oshkosh School.....	Oral	Ck., Manual Training.....	12	12	6	6	12	12	.....	15	2	2	2	2	2	2	2	
22 Public Day-Schools.....	527	438	240	198	415	326	6	1,242	66	8	58	8	58	6	55	9	

* See page 60.
 ** Including the pupils who have left during the year.
 † A = number taught wholly or chiefly by the Oral method.
 ‡ Including those who teach speech and those who teach by speech.

B = number taught wholly or chiefly by the Articular method.
 †† Including the principal, and the teachers of industries.

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1897-'98—Continued.
PUBLIC DAY-SCHOOLS IN THE UNITED STATES—Continued.

Name.	Vacation.	How Supported.
1 Horace Mann School.....	Last Tuesday in June to first Wed. in Sept.....	State and city.
2		
3		
4		
5		
6		
7		
8		
9 Chicago Public Schools.....	July and August.....	State Public School Fund.
10 Cincinnati Public School.....	June 23 to second Mon. in Sept.....	City.
11 St. Louis Day-School.....	Second Friday in June to first Mon. in Sept.....	City.
12 Milwaukee Day-School.....	Last Fri. in June to first Mon. in Sept.....	State and city and county.
13 Cincinnati Oral School.....	June 20 to Sept. 8.....	State and city.
14 Evansville School.....	First Thurs. in June to first Mon. in Sept.....	City.
15 Wausau Oral School.....	June 12 to Sept. 8.....	State and city.
16 Cleveland School.....	June 13 to Sept. 13.....	City, and City.
17 Shelbygan School.....	Last of June to first of Sept.....	State and City.
18 Detroit Day-School.....	Twelve weeks.....	City, and City.
19 Eau Claire School.....	Sixteen weeks.....	State and City.
20 Fond du Lac School.....	June 1 to Sept. 9.....	State and City.
21 Marinette School.....	Last of June to first of Sept.....	State and City.
22 Oshkosh School.....	June 25 to Sept. 6.....	State and City.
23 Public Day-Schools in the United States.		

C.—DENOMINATIONAL AND PRIVATE SCHOOLS IN THE UNITED STATES.

Name.	Location.	Date of Opening.	Chief Executive Officer.
1 German Evangelical Lutheran Deaf and Dumb School.....	North Detroit, Wayne Co., Mich.....	1873	D. H. Uhlig, Director.
2 St. John's Catholic Deaf-Mute Institute.....	St. Francis, Wis.....	1876	Rev. M. M. Gerend, President.
3 F. Knapp's Institute.....	Baltimore, Md. (361 & 363 Hollins St.).....	1877	Wm. A. Knapp, Principal.
4 The McCowen Oral School for Young Deaf Children.....	Chicago, Ill. (6340 Yale Ave.).....	1883	Miss Emma Virth, Head Teacher.
5 Epiphania School for the Deaf.....	Chicago, Ill. (409 S. May St.).....	1884	Margaret Cosgrove, Superintendent.
6 Marie Conallie School for the Deaf.....	St. Louis, Mo. (1849 Cass Ave.).....	1885	Sister Adele, Principal.
7 Keeler Private Articulation Class for Deaf-Mutes.....	New York, N. Y. (27 E. 46th St.).....	1886	Miss Sarah Warren Keeler, Principal.
8 Sarah Fuller Home for Little Children Who Cannot Hear.....	West Medford, Mass. (Woburn St.).....	1888	Miss Eliza L. Clark, Principal & Matron.
9 Eastern Iowa School for the Deaf.....	Dubuque, Iowa.....	1888	De Coursey French, Principal.
10 Notre Dame School for the Deaf.....	Cincinnati, O. (East Sixth St.).....	1890	Sister M. of the B. Heart, S. N. D., Prin.
11 Charitable Deaf-Mute Institution of the Holy Rosary.....	Chinchuba, St. Tammany Parish, La.....	1890	Very Rev. Canon H. C. Mignot, Pres.
12 St. Joseph's Deaf-Mute Institute for Boys.....	Longwood Place, South St. Louis, Mo.....	1893	Rev. Mother Agatha, Principal.
13 Wright-Humason School.....	New York, N. Y. (42 West 76th st.).....	1894	{Thos. A. Humason, M. A., Ph.D. } Prin's { John Dutton Wright, M. A. }
14 St. Joseph's School and Home for Deaf-Mutes.....	North Tennesseal, Cal.....	1895	Sister M. Valeria, Principal.
15 Chicago Kindergarten Home for the Deaf.....	Chicago, Ill. (4725 St. Lawrence Ave.).....	1897	Miss Charlotte Louise Morgan, Director.
16 Mr. Larson's School for the Deaf.....	Santa Fe, N. M.....	1897	Lars M. Larson, B. A., Superintendent.
17 The Gillespie School for the Deaf.....	Omaha, Neb.....	1897	John A. Gillespie, M. A., Superintendent.
17 Denominational and Private Schools in the United States.			

56 *Schools for the Deaf in the United States, 1897-'98.*

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1897-'98—Continued.
DENOMINATIONAL AND PRIVATE SCHOOLS IN THE UNITED STATES—Continued.

Name.	Methods of Instruction.*	Industries Taught.*	NUMBER OF PUPILS.					PRESENT NUMBER OF INSTRUCTORS.						
			PRESENT NOV. 15, 1897.					PRESENT NUMBER OF INSTRUCTORS.						
			Within the year 1897.**	Total.			Taught Speech.†		Total have received instruction.	Total ††	Male. ††	Female. ††	Deaf.	Industrial.
				Total.	Male.	Female.	A.†	B.†							C.†
1 German Lutheran Institute.....	Combined.....	None.....	45	39	21	18	222	4	3	1	1	3	3	
2 St. John's Catholic Institute.....	Combined.....	Car, Pa., Wc.....	31	30	15	15	258	7	4	3	3	3	3	
3 Mr. Knapp's Institute (a).....	Oral.....	None.....	26	26	16	10	26	3	1	2	3	3	3	
4 McCowen Oral School.....	Oral.....	Cl., Pa., Pa., Se., Sl.....	31	23	12	11	23	5	5	5	5	5	2	
5 Ephratha School.....	Combined.....	Cl., Se., Wc.....	110	110	61	49	242	11	11	11	9	2	2	
6 Marie Conella School.....	Combined.....	Dr., Pr.....	41	39	4	35	7	6	6	6	2	2	2	
7 Kehler Class.....	Oral.....	None.....	11	10	7	3	42	2	2	2	2	2	2	
8 Sarah Fuller Home.....	Oral.....	None.....	5	5	2	3	18	1	1	1	1	1	1	
9 Eastern Iowa School.....	Manual.....	None.....	15	13	9	4	29	3	3	3	3	3	1	
10 Notre Dame School.....	Combined.....	Dr., Se.....	56	52	35	17	86	8	2	6	2	4	4	
11 Institution of the Holy Rosary.....	Combined.....	Pa.....	16	11	11	13	32	3	3	3	3	1	2	
12 St. Joseph's Institute (Mo.).....	Oral.....	None.....	23	19	6	14	34	11	3	8	9	9	9	
13 Wright-Humason School.....	Oral.....	None.....	27	20	6	14	27	5	5	5	1	1	1	
14 St. Joseph's Institute (Cal.).....	Combined.....	Art, Dr., Em.....	4	4	3	1	4	3	3	3	3	3	3	
15 Chicago Kindergarten Home.....	Oral.....	None.....	8	8	6	2	8	1	1	1	1	1	1	
16 Mr. Larson's School.....	Manual.....	Sewing.....	9	9	5	4	9	2	2	2	2	2	2	
17 The Gillespie School.....	Combined.....		458	418	219	199	330	145	13	1,440	75	16	39	
17 Denom. and Private Schools.....												3	47	

* See page 60.
 ** Including the pupils who have left during the year.
 † A = number taught speech.
 †† Including the principal and the teachers of industries.
 ‡ Including those who teach speech and those who teach by speech.
 (a) This school also admits hearing pupils, but the statistics of only the deaf pupils and their instructors are here given.

Schools for the Deaf in the United States, 1897-'98. 57

Name.	Vacation.	How Supported.
1 German Evangelical Lutheran Institute.....	July 18th to September 1st.....	Tuition fees and Lutheran Congregations.
2 St. John's Catholic Institute.....	End of June to first week in Sept.....	Voluntary contributions and tuition fees.
3 Mr. Knapp's Institute.....	None.....	Tuition fees and State appropriations.
4 McCowen Oral School.....	Last Friday in June to first Monday in Sept.....	Tuition fees and voluntary contributions.
5 Epiphani School.....	Last week of June to first week of Sept.....	Tuition fees and voluntary subscriptions.
6 Maria Consalia School.....	Third Wednesday in June to second week in Sept.....	Tuition fees and voluntary contributions.
7 Keeler Class.....	August.....	Tuition fees.
8 Sarah Fuller Home.....	June 12 to Sept. 15.....	Private subscription.
9 Eastern Iowa School.....	15th of June to first week in September.....	Contributions, fairs, and exhibitions.
10 Notre Dame School.....	June 1 to September 1.....	Voluntary contributions and tuition fees.
11 Institution of the Holy Rosary.....	June 30 to Sept. 1.....	Voluntary contributions and tuition fees.
12 St. Joseph's Institute (Mo.).....	June 7 to Oct. 1.....	Tuition fees.
13 Wright-Humason School.....	Two months.....	Industry of sisters and tuition fees.
14 St. Joseph's Institute (Cal.).....	July and August.....	Tuition fees.
15 Chicago Kindergarten Home.....	July and August.....	Tuition fees.
16 Mr. Larson's School.....	July and August.....	Tuition fees.
17 The Gillespie School.....	July and August.....	Tuition fees.
17 Denominational and Private Schools.		

TABULAR STATEMENT OF AMERICAN SCHOOLS FOR THE DEAF, 1897-'98—Continued.

C.—SCHOOLS IN CANADA.

Name.	Location.	Date of opening.	Chief Executive Officer.
1 Catholic Male Deaf and Dumb Institution for the Province of Quebec	Mile-End, near Montreal, P. Q.	1848	Rev. Alf. Bélanger, C. S. V., Director.
2 Catholic Female Deaf and Dumb Institution	Montreal, P. Q. 695 St. Denis St.)	1861	Sister Philip of Jesus, Superioress.
3 Halifax Institution for the Deaf and Dumb	Halifax, N. S.	1867	James Fearon, Principal.
4 Ontario Institution for the Deaf and Dumb	Belleville, Ontario.	1870	Robert Mathison, M. A., Superintendent.
5 Mackay Institution for Protestant Deaf-Mutes and the Blind	Montreal, P. Q. (a)	1870	Mrs. H. E. Ashcroft, Superintendent.
6 Frederickton Institution for the Education of the Deaf and Dumb	Fredericton, N. B.	1882	Albert F. Woodbridge, Principal.
7 Manitoba Deaf and Dumb Institution	Winnipeg, Manitoba.	1888	D. W. McDermid, Principal.
Schools in Canada.			

Name.	Methods of Instruction.*	Industries Taught.*	NUMBER OF PUPILS.					PRESENT NUMBER OF INSTRUCTORS.								
			PRESENT NOV. 10, 1897.													
			Total.	Male.	Female.	A.†	B.†	C.†	Total have received instruction.	Total.††	Male.††	Female.††	Deaf.††	Articulate.††	Industrial.	
1 Cath. Inst (Male) { Oral Dep {	Oral.....	Ba., Bl., Bo., Cab., Car., Fa., Ga., Pa., Fr., Sh., Ta., Wt.	51	43	8	43	43	.....	763	{ 20 20	20	20	3	6	14
2 Cath. Inst (Male) { Man. do. {	Manual.....		61	51	10	.....	.....	.....	.....	{ 22 22	22	22	.....	.....	.....
3 Cath. Inst (Fem) { Oral Dep {	Oral.....	Art., Em., Ho., Kn., Se., Wca.	98	98	0	98	98	95 3	829	{ 20 20	20	20	14	6	6	
4 Halifax Institution.....	do. do. Combined.}	Car., Dr., Ga.....	70	63	7	63	33	3	.....	{ 16 16	16	16	2	2	2
5 Ontario Institution.....	do. do. do.	Car., Dr., Pr., Sh., Ta.....	93	82	11	82	79	15	.....	{ 9 9	4	15	2	6	2
6 Mackay Institution.....	do. do. do.	Cab., Car., Dr., Fr., Sh., Wc.	202	273	152	121	54	.....	1,113	22	11	11	6	2	5
7 Frederickton Institution.....	do. do. do.	None.....	62	54	8	30	24	37	14	9	168	8	2	6	3	
8 Manitoba Institution.....	do. do. do.	Co., Pa., Pr., Se., Wc.	36	32	4	20	12	25	68	4	3	3	1	1	1	
Schools in Canada.....			829	735	368	397	331	177	12	3,004	126	64	62	17	33	31

Name.	Vacation.	How Supported.	Value of buildings and grounds.	EXPENDITURE LAST FISCAL YEAR.		No. volumes in library.
				For support.	For buildings and grounds.	
1 Catholic Inst'n, (Male).....	Third Wed. in June to first Wed. in Sept.	Province, pupils, and vol. contributions,...	\$150,000	.....	.....	1,000
2 Catholic Inst'n, (Female).....	July 1st to Sept. 1st.....	Province and voluntary contributions	80,000	.....	.....	4,136
3 Halifax Institution	Last week in June to first week in Sept.	Province and voluntary contributions	239,000	\$14,857	\$16,240	2,451
4 Ontario Institution	Third Wed. in June to second Wed. in Sept.	Province, pupils, and vol. contributions,...	60,000	45,262	3,050	500
5 Mackay Institution	Third Wed. in June to second Wed. in Sept.	Province and voluntary contributions,...	.....	12,000	.....	500
6 Fredericton Institution.....	July 1 to Sept. 1.....	Province.....	.....	5,879	.....	360
7 Manitoba Institution	Second Wed. in June to second Wed. in Sept.	Province.....	35,000	11,205	500	.....
Schools in Canada.						

* See page 60. ** Including those who have left school during the year. † A = number taught speech. ‡ Including the principal and the teachers of industries. †† Including the principal and the teachers of industries. ‡ Including the principal and the teachers of industries.

C = number taught wholly or chiefly by the Oral method. (a) Notre Dame de Grace.

METHODS OF INSTRUCTION AND INDUSTRIES TAUGHT IN AMERICAN SCHOOLS.

THE "Methods of Instruction" named in the preceding Tabular Statement may be defined as follows:

I. *The Manual Method.*—Signs, the manual alphabet, and writing are the chief means used in the instruction of the pupils, and the principal objects aimed at are mental development and facility in the comprehension and use of written language. The degree of relative importance given to these three means varies in different schools; but it is a difference only in degree, and the end aimed at is the same in all.

II. *The Oral Method.*—Speech and speech-reading, together with writing, are made the chief means of instruction, and facility in speech and speech-reading, as well as mental development and written language, is aimed at. There is a difference in different schools in the extent to which the use of natural signs is allowed in the early part of the course, and also in the prominence given to writing as an auxiliary to speech and speech-reading in the course of instruction; but they are differences only in degree, and the end aimed at is the same in all.

III. *The Manual Alphabet Method.*—The general instruction of the pupils in and out of school is carried on by means of the orthographic and phonetic manuals, and by writing and speech.

IV. *The Auricular Method.*—The hearing of semi-deaf pupils is developed and improved to the greatest possible extent, and, with or without the aid of artificial appliances, their education is carried on chiefly through the use of speech and hearing, together with writing. The aim of the method is to graduate its pupils as hard-of-hearing speaking people instead of deaf-mutes.

V. *The Combined System.*—Speech and speech-reading are regarded as very important, but mental development and the acquisition of language are regarded as still more important. It is believed that in many cases mental development and the acquisition of language can be best promoted by the Manual method, and, so far as circumstances permit, such method is chosen for each pupil as seems best adapted for his individual case. Speech and speech-reading are taught where the measure of success seems likely to justify the labor expended, and in most of the schools some of the pupils are taught wholly or chiefly by the Oral method or by the Auricular method.

The "Industries Taught" in American Schools for the Deaf, mostly designated by abbreviations in the preceding Tabular Statement, are: Art, Baking (Bak.), Barbering (Bar.), Basket-making (Bas.), Blacksmithing (Bl.), Bookbinding (Bo.), Bricklaying (Bk.), Broom-making (Br.), Cabinet-making (Cab.), Calcimining (Cal.), Carpentry (Car.), Chalk-engraving (Ce.), Cementing (Cg.), Chair-making (Ch.), Cooking (Ck.), Clay-mod-

elling (Cl.), Coopers (Co.), China-painting (Cp.), Drawing, Dress-making (Dr.), Embroidery (Em.), Engineering (En.), Fancy-work (Fan.), Farming (Fa.), Floriculture (Fl.), Gardening (Ga.), Glazing (Gl.), Harness Repairing (Ha.), Housework (Ho.), Horticulture (Hor.), Knitting (Kn.), Manual-training (Man.), Mattress-making (Ma.), Painting (Pa.), Paper-hanging (Pap.), Plastering (Pl.), Plate-engraving (Pe.), Pictorial-engraving (Pic.), Photography (Ph.), Printing (Pr.), Sewing (Se.), Shoemaking (Sh.), Sloyd (Sl.), Stone-laying (St.), Tailoring (Ta.), Type-writing (Ty.), Weaving (Wea.), Wood-carving (Wc.), Wood-engraving (We.), Wood-turning (Wt.), Wood-working, and the Use of Tools.

HELEN KELLER'S SUB-CONSCIOUS RETENTION OF EARLY IMPRESSIONS.

It is a fact generally recognized among teachers of the deaf that the mental condition of deaf children who have lost their hearing in infancy—say from one to three years of age—is essentially different from that of those born deaf. When these “quasi-congenitally” deaf children come to school their remembrance of the language acquired in infancy seems to have been entirely effaced; they have no conscious knowledge of words, and must learn written language and vocal speech by the same laborious processes as if they had never heard. But their teachers find that, evidently as the result of their sub-conscious retention of early impressions, they almost invariably acquire language and speech more easily and successfully, and adapt themselves to the modes of thought of hearing persons more readily, than those born deaf. Helen Keller's extraordinary quickness in language is doubtless, as has often been remarked, partly due to this sub-conscious persistence of the impressions made upon her mind before she lost her hearing, at the age of nineteen months. This view is confirmed by an interesting experiment which Dr. Charles Waldstein recently made with Helen in order to ascertain whether it were possible to recall to her, through

the sense of touch, impressions of *music* received in infancy. He describes the experiment and its remarkable result as follows in "The Sub-Conscious Self":

I wrote to Mrs. Keller, who kindly sent me the titles of two plantation songs, which were commonly sung in her home in Alabama when Helen was a baby, but are not now generally sung, and which I could procure only in manuscript from the South. These tunes I had played upon the piano while she stood beside the instrument with her fingers resting upon its wooden frame. Care was taken, of course, that she should know nothing of my intentions, and that she should be taken unawares. The effect was striking. The young woman, now just entering upon her sixteenth year, became greatly excited, laughed and clapped her hands, after the first few bars of "Way down in the Meadow, a-mowing of the Hay."

"Father carrying baby up and down, swinging her on his knee. Black crow! black crow!" she exclaimed, repeatedly, with manifest emotion. Miss Sullivan and several ladies present were greatly astonished at the result. On hearing the second song, "The Ten Foolish Virgins," the same effect was produced. It was evident to all those who were present that the young lady was carried back to her early surroundings, even into the time of life when she was carried about by her father; but we could not find a meaning for the words "black crow." I considered it prudent not to question her, but applied by letter to her mother, who was kind enough to send an early reply. Mrs. Keller said: "What you wrote interested us very much. The 'Black Crow' is her father's standard song, which he sings to all his children as soon as they can sit on his knee. These are the words: 'Gwine 'long down the old turn row, something hollered, Hello, Joe,' etc. It was a sovereign remedy for putting them [the children] in a good humor, and was sung to Helen hundreds of times. It is possible that she remembers it from its being sung to the two younger children as well as to herself. The other two, I am convinced, she had no association with, unless she can remember them as she heard them before her illness. Certainly, before her illness, her father used to trot her on his knee and sing the 'Ten Virgins,' and she would get down and shout as the negroes do in church. It was very amusing. But after she lost her sight and hearing it was a very painful association, and was not sung to these two little ones" (the younger children).

It was quite clear that the child, after she was nineteen months old, might have received an impression of the "Old Crow" song when it was sung to the younger children through the peculiar vibrations communicated to the floor of the room; but the other two songs could only be perceived through the ear when she was a baby younger than eighteen months and could hear, and are therefore a part of her earliest memory. We are therefore justified in assuming that the vibrations of the piano from the two plantation songs, communicated to her by touch over fourteen years later, have travelled to the centre where her early aural im-

pressions are stored up, and that they in their turn reawakened the memory of the "Old Crow" song, which she had heard before her illness, and possibly also felt by vibrations afterward when it was sung to the younger children.

It appears to me that this striking instance proves beyond a doubt, and as nothing else could more, the persistence of early impressions, as well as the intimate connection that the centres of two different senses, though physiologically related in many ways, may assume in certain cases. The mental quality of sound thus conveyed by vibration alone must, it is evident, be of a peculiar nature, different from such sensations of the normal person, for it is composed of elements of the immediate skin impressions, associated with those of the earlier ones deposited in the normal sound memory.

SCHOOL ITEMS.

Albany Home School.—Miss Lena Whipple, formerly of the Mystic Oral School, was employed from September, 1896, to February, 1897, when her health failed, and her place was filled by Miss Carrie E. Frick. Miss Whipple died in May.

In April State aid was secured for pupils who had passed the age of twelve years.

Arkansas Institute.—Miss Susan W. Harwood, who taught in the Virginia Institution twenty-five years and in this Institution for about twenty years, has been relieved of active duty, but will continue to reside in the Institute, rendering only such service as it may be her pleasure to give.

Central New York Institution.—Miss Bessie Hall, Miss Letitia Booth, and Mrs. E. M. Holliday, the last on account of illness, have severed their connection with the Institution. Miss Mabel Morris and Miss E. A. Dobbins have been appointed to fill two of the vacancies. Miss M. W. Comstock has been advanced to Mrs. Holliday's place, and Mrs. Ida Thomas, supervisor of girls, temporarily to Miss Comstock's place.

Chicago Kindergarten Home.—This school for very young children was opened July 1, 1897, under the charge of Miss Charlotte Louise Morgan, formerly of the McCowen School. "It is distinctly a home school, where, according to the principles given by Froebel, the teachers live with the children,

and through the use of speech and written language supply their daily needs." Hearing children are received as day pupils. The number of deaf pupils is limited to eight, and their ages range from two to five years. Miss Morgan is assisted by Miss Alice Florence Coburn and Mrs. Jean P. Miner Coburn.

Chicago Public Schools.—Miss Beaman has been transferred from the Yale School to the Kozminski School. Miss Flora St. Clair, formerly of the McCowen School, but for the past four years a teacher in the Colorado School, has returned to Chicago and is appointed to a position in the Yale School. Miss Mary O. Arnold, a graduate of the Chicago Normal School who took special training with Miss McCowen, is placed in charge of the new school opened in the Lyman Trumbull building. She is assisted by Mrs. Bellows, who was transferred, with her pupils, from the Lincoln School.

Cincinnati Oral School.—Miss Louise Karger has resigned her position as teacher, and is succeeded by Miss Ida Schwegler.

Clarke School.—The Hon. Gardiner Greene Hubbard, a member of the corporation, died at his home in Washington, D. C., Dec. 11, 1897, of diabetes, aged 76. Mr. Hubbard became interested in the oral instruction of the deaf from having a daughter who lost her hearing in childhood. In 1864 he petitioned the Massachusetts Legislature for a charter for an oral school, and, in order to show that it was not a visionary project, he assisted Miss Harriet B. Rogers in organizing a private school of this kind at Chelmsford. In 1867, chiefly through his untiring efforts, a bill was passed establishing the Clarke School, and he was elected the first president of the corporation, an office which he held until 1877. His interest in the oral teaching of the deaf never abated; he continued a member of the corporation of this School throughout his life, and was also the First Vice-President and a member of the Executive Committee of the American Association to Promote the Teaching of Speech to the Deaf. For the last sixteen years Mr. Hubbard has resided in Washington, where he has been an active worker for the public good, contributing largely to

the development of the city not only in a material way, but also in the promotion of science, literature, and art.

Florida Institute.—The corps of teachers in the white department has been entirely changed. It now consists of Miss Candace A. Yerkes, teacher of speech; Mr. Harry Reed, B. A., a graduate of Gallaudet College; and Miss Susie C. Tillinghast.

Frederickton Institution.—The main building was destroyed by an incendiary fire in September last. The local government placed the Government House at the disposal of the Institution, and its work is now carried on in that building.

Gallaudet College.—The normal class this year consists of Mr. Cyrus E. White, B. A., a graduate of Penn College; Mr. Frank M. Driggs, an instructor in the Utah School; Mr. Ezra S. Henne, a graduate of the Michigan State Normal School; Miss Laura C. Wing, a graduate of Cutler Academy, Alabama, and Miss Edith B. Pyle, a graduate of St. John's School, New York.

Georgia School.—Mr. W. A. Caldwell, teacher in the negro department, has accepted a similar position at the North Carolina (Raleigh) Institution. Miss Carrie Colclough, of Gainesville, Florida, has been appointed in his place. Miss M. Bayard Morgan, teacher of art, woodcarving, and physical culture, was married in the chapel of the school to Mr. Charles T. Woolten, a lawyer of Wadley, Georgia, November 21, 1897. Mr. Connor says she was an excellent teacher, whose place it will be hard to fill.

Horace Mann School.—Miss Florence E. Leadbetter has resigned her position to become a teacher in the Roxbury High School.

Cooking has been added to the industries taught. Two classes of girls and one of boys receive one lesson each during the week in a neighboring public school.

The tablet in memory of Francis Green, placed in the vestibule of the School by the Parents' Association,* was formally presented to the city on the 15th of November last. The principal address was by Dr. Alexander Graham Bell.

* See the last volume of the *Annals*, p. 199.

Missouri School.—Mr. H. E. Walker has resigned his position as teacher to accept a similar position in the Tennessee School. He is succeeded by Mr. C. H. Hill, formerly principal of the West Virginia School.

Montreal Catholic Male Institution.—Brother Young, a deaf teacher who had been connected with the Institution since its reopening in 1856, died suddenly of heart-disease during the past year, aged 76. He was a native of France. The Rev. Father Bélanger writes us that as a sign-maker he compared favorably with Clerc and Forestier.

The workshops of the Institution were nearly all destroyed by fire last year. The loss was \$30,000, with an insurance of only \$3,200.

Mystic Oral School.—The School has been reorganized under the control of a corporation, and now has the following corps of instructors: Miss Ella Scott, Principal; Miss Maud Emerson, Assistant Principal; Miss Elizabeth Lyman, teacher; Miss Josephine Drake, art teacher; Misses Laura Stearns, Marian Noyes, and Anna Grady, normal training class.

Nebraska School.—The corps of instructors at the present time is constituted as follows: Manual teachers, O. W. Hendee, A. T. Colt, Ida Hendee, and Otie B. Crawford; Oral teachers, T. F. Moseley, Margaret Maywood, Grace Culbertson, Lillian Bamford, Edith Rand, and Kate R. Davis; Kindergarten teachers, Emma Crane and Julia Wentworth.

New England Industrial School.—Miss Sheldon, teacher of articulation, has resigned to engage in missionary work in Saluda, North Carolina. Her place is not yet supplied.

New Jersey School.—Mr. Louis R. Abbott, the instructor in wood-working, has resigned to accept a position in a large manufacturing establishment. His successor has not yet been appointed, but it is the intention of the management to secure a young man who shall have the same advantages of a technical education as well as of mechanical skill. Miss Estelle M. Dey was obliged to resign early in October on account of a sudden failure of health. Miss Adelaide A. Hendershot, who formerly taught with much acceptance in this school for two years, has been appointed to take Miss Dey's place.

A fine and commodious hospital building has been planned and partly constructed, but, the appropriation not sufficing to finish it, the building cannot be used this season.

New Mexico School.—In consequence of a reduction in the general appropriation bill, by which this School as well as all the other public institutions of the Territory suffered seriously, the School has not been in session since last June. It will probably reopen in February. Meanwhile, Mr. Larson is conducting a private school in the building, having four Indian children who are supported by the National Government, and four white children who are pay pupils.

New York Institution.—Miss Jane T. Meigs, after forty-six years of faithful service, and Miss Luann C. Rice, after twenty-eight years, retired on the first of September last. With regard to Miss Meigs, the Board of Directors adopted the following minute, and also placed her upon the list of emeritus teachers with an annual salary of \$600.

After forty-six years of continuous service in the instruction of the deaf, Miss Jane T. Meigs retired from the Institution on the 1st of September last.

In view of this unusual record, the Directors of the Institution desire to give expression to their very thorough appreciation of the work of Miss Meigs in ameliorating the condition of the deaf children who, during these many years, have been confided to her care, and whose success in life after graduation bespeaks the great worth of her labors for them. While extending to her their congratulations upon having enjoyed for so long a term such varied opportunities for benefiting afflicted mankind, they follow her with their best wishes for continued happiness and peace in her declining years.

With regard to Miss Rice the Board adopted the following minute :

The Directors of the New York Institution for the Instruction of the Deaf and Dumb, in view of the efficient service rendered to the cause of deaf-mute education by Miss Luann C. Rice during the twenty-eight years that have elapsed since she first became a member of the staff of instruction, present this testimonial of their appreciation of her labors and expression of their regret that the condition of her health has rendered it necessary that she should retire from active service in this Institution.

Throughout all these years, she possessed a remarkable influence over succeeding generations of little boys at the Mansion House kindergarten,

whom she regarded as her children, and, ever alive to promoting their best interests, she instilled among them all an earnest desire for refinement, propriety, and all the virtues to such an extent that her memory will always remain devotedly cherished by those she has been instrumental in raising from the helplessness of ignorance to the full strength of intelligence.

To supply vacancies in the staff of instruction the following appointments have been made: Miss Catherine B. Schenck, formerly of the Cleveland Day-School; Miss Margaret B. Clarke, of Columbus, Ohio; Miss Elizabeth M. Burgess, and Miss Edna B. Lewis, experienced kindergartners, of New York City.

Miss Amelia E. Berry, who had for three years past been a member of the staff of instruction, was compelled by reason of ill-health to retire; her place has been supplied temporarily by Mr. E. S. Burdick, who has had several years' experience in teaching hearing children.

North Carolina (Morganton) School.—Miss Hesta Reed has been appointed an assistant teacher in the oral department.

North Dakota School.—We regret to have to put the name Asylum again in our list of schools for the deaf, but Mr. Bangs discovered last summer that "Deaf and Dumb Asylum" was the legal title of the School. This was the original name given it by the Constitutional Convention, but it was changed by the legislature four years ago to "School for the Deaf." Mr. Bangs, however, found that the legislature could not legally alter the name. The legal name of the Montana and Texas Schools is also Asylum.

North Stafford School.—The "North Stafford Blind and Deaf School" at Stoke-on-Trent, England, was opened May 3, 1897. This School was founded by a combination of six local school boards known as "The North Stafford Joint School Authority," and is supported entirely from the rates in accordance with the Act of 1893, thus being the first English residential school established by any public authority and not as a charity. It has accommodations for 112 deaf children. The methods of instruction are largely oral, but the manual method is used with unpromising pupils. Mr. and Mrs. A. J.

Story, both of whom are experienced teachers of the deaf, are headmaster and matron.

Ohio Institution.—Miss Bertha Byers, a teacher for several years, has resigned to marry Mr. Robert Patterson, Principal. Miss Elsie Kennie, Miss Bessie Hunter, Miss Anna B. Steelman, and Miss Lida Kinsell have been added to the corps of teachers. Miss Anna Protzmann has been transferred from the teaching of a manual class to that of an auricular class.

Ontario Institution.—Miss M. M. Ostrom, a successful teacher in this Institution during the past sixteen years, has resigned to marry Mr. A. H. Gilbert, of New York. Miss Ida M. Jack, formerly of the Michigan School, has been added to the staff as a teacher of articulation, and Mr. A. A. McIntosh, a graduate of the Institution, as monitor teacher and assistant in the printing office.

Oregon School.—Miss Mary Parmenter has been added to the corps of teachers.

Pennsylvania Institution.—Miss Amy Stone, for three years a valued instructor in the Advanced Oral Department, died November 1st, and Miss Mary E. Loudon, of Germantown, was appointed to fill the vacancy. Miss Fanny D. Gladding, of the Primary Oral Department, has resigned on account of her approaching marriage. Miss Hannah C. Wells, formerly of the Clarke School, has been appointed her successor.

The Annex to Morris Industrial Hall, erected by Mr. John T. Morris, at an expense of \$15,000, is now completed.

A Mergenthaler Linotype machine was placed in the printing-office about the first of October. It is used only by pupils who already have a practical knowledge of printing. They succeed in mastering the machine readily.

An electric clock has recently been put in operation, connecting all the departments with the Superintendent's office.

Rhode Island School.—Miss Sparrow, Miss Cheney, and Miss Gill have resigned, and Miss Currier, Miss Forsythe, Miss Flint, and Miss Wells have been appointed teachers.

Royal Cross School.—The Board of Management of the Royal Cross School, Preston, England, raised upwards of £4,000 by means of a bazaar which was opened by Lord

Derby on the 6th of October, and with this they have cleared off the debt on the building fund, and after paying expenses have left a balance of a few hundreds towards the erection of a new hospital. The hospital will provide for thirteen beds, at the rate of 1,000 cubic feet per bed, besides accommodation for nurses, etc. The chairman of the board (the Ven. Archdeacon Rawstorne, M. A.), at the first meeting after the bazaar, intimated his desire to see the building scheme completed, and offered to give £3,000 for that purpose. The school was originally designed for 100 children, but for want of funds it was cut down to 50. It has now been decided to enlarge it in such a manner as to provide ample accommodation for 80 children. The main building will have two wings added to it, and it will be used exclusively as a residence. An adjacent plot of land, four acres in extent, has been secured, and on it a new school is to be erected, consisting of a central hall and eight or nine class-rooms. The enlarged site is over nine acres in extent, and is picturesquely and healthfully situated. The Archdeacon's gift will enable the Board to complete their building operations without delay, and it is proposed to associate the Archdeacon's name with the new buildings. The Endowment Fund has been recently increased to £6,000.

South Dakota School.—Mrs. M. L. Simpson, formerly a teacher in this School, and more recently connected with the Michigan School, has returned to the work here. Miss Claire A. Gentry has been appointed teacher of articulation in the place of Miss Dora E. Donald.

Tennessee School.—During the summer vacation Mr. Albert H. Walker resigned his position as teacher of the advanced class and entered the insurance business in Columbia, S. C. His brother, Mr. Horace E. Walker, who had been a teacher in the Missouri School for ten years, was chosen as his successor.

Washington State School.—During the vacation the electric-light plant was enlarged by the installing of an additional 15 K. W. Edison dynamo, which suffices to light the building for the feeble-minded, a mile distant from the power-house.

AMERICAN ANNALS OF THE DEAF.

VOL. XLIII, No. 2.

FEBRUARY, 1898.

THE USE AND ABUSE OF TEXT-BOOKS.

THE following article is made up from papers read at the October meeting of the Teachers' Association of the Minnesota School. The program included papers on the use of *Miss Sweet's books*, by Miss Heizer and Miss Kilpatrick; a paper on *Readers and Reading Lessons*, by Mr. Sheridan; and papers on *The First Regular Text-Books*, by Miss Pollard, *Text-Books in the Higher Classes*, by Mr. Smith, and *The Abuse of Text-Books*, by Mr. Tuck. This article is a combination of the last three.

When hearing children take up text-books on history, geography, grammar, and other sciences, they have already a sufficient command of language to be able to understand the language of the book, and all they have to learn is the facts. When we give our deaf pupils text-books, no matter how elementary they may be, they must learn the language before the facts can even enter their minds.

It is not strange, therefore, that the first thought of the teacher is that the language of the book must be explained, simplified, and made easy for the pupil. Right here he has it in his power to do incalculable good or irreparable injury to his pupils. The teacher who explains and simplifies a lesson in a text-book encourages his pupils to depend upon him for help over hard places, and the pupils

make little or no effort to help themselves as long as it is so much easier and less trouble to go to their teacher.

The time will come when they will have to go alone or stand still, and never having learned how to depend upon themselves and not having any knowledge of or confidence in their ability to go ahead unaided, they will remain stationary. Only a small part of one's education is acquired at school. How important it is, then, that we should so train and teach our pupils that they may be accustomed to self-effort and able to continue by themselves, after they leave us, what they begin while under our care.

Some explanation and some help are necessary and should not be withheld, but the teacher taking up any text-book should remember, from the very outset, that the tendency is more often to give too much rather than too little, and of the two evils, too much or too little, it is far better for the pupil's sake that there should be too little. It is what the pupil does for himself, not what the teacher does for him, that helps him on. And there is such a thing as increasing the unnecessary work of the teacher and diminishing the rightful work of the pupil.

I once knew a lady who owned a dog. That dog was a fortunate beast ; he had more care and attention than some people give to their children. One day the lady's brother was present while she was preparing a meal for her pet. He sat and watched her cut each piece of meat into infinitesimal morsels without saying a word, but with a look of disgust on his face. At last he could stand it no longer and burst out, " For pity's sake, give that dog's teeth a chance." Just so the teacher who explains and illustrates, and illustrates and explains with the best intentions in the world, gives his pupil's brains no chance.

The first thing necessary to a successful use of text-books is for the teacher to know each lesson thoroughly. If he is able to supply facts and incidents outside of the text he is certain to arouse the interest and hold the at-

tention of his pupils. He should go ahead slowly and be very thorough. If a pupil answers a question in the exact language of the text, it is well to make sure that he fully understands what he is saying. A boy or girl with a fair memory can retain in mind a great deal without having the least apprehension of it.

Much of the success, or lack of it, in the use of text-books depends upon the manner of questioning. The highest art in asking questions is to draw out whatever there may be in the mind of the person questioned. Some teachers can show a pupil that he knows more about a lesson than he is himself aware of, and others frighten all knowledge back into the innermost recesses of his brain by their manner of asking the most simple question.

Too much stress cannot be laid upon the importance of reviewing each lesson, not once only, but again and again. We learn by frequent repetition. We can give our pupils nothing that is more profitable than review work. At least half the time devoted to a recitation should be occupied with review work on the previous lesson, and, in addition, there should be weekly reviews, monthly reviews, and periodical reviews. We cannot possibly give too much review work.

The use of set questions calling for the same answers and gone over again and again, until questions and answers are alike stereotyped in the minds of the pupils, is to be strongly deprecated, both in regular and in review work. A class so taught will always be able to make a brilliant showing at examinations, but the least change in the questions will throw the pupils off the track and show how little of what they claim to have learned they have really assimilated and made their own. Such a method of teaching is purely mechanical and does not require the use of any text-book by the pupils. The questions and answers might just as well be given without the book, for the pupils make little or no use of the text. A pupil who under-

stands what he has been learning ought to be able to do more than to answer a long question by two or three words.

Time and time again, when I have been on duty during the evening study-hour, I have had idle pupils inform me that their teacher told them that they were "not to study," but to "get the idea" of their lesson. They had read over the lesson once or twice and claimed that they "understood" it. No persuasion or expostulation would induce them to do more, and I cannot say that I blamed them. The truth was they had no means of knowing when they had learned the lesson. If they read it over again and again for the full hour, they would be no nearer having learned it, as far as they could see, than when they had read it only two or three times, and they would have committed it to memory, which they were expressly told not to do. A lesson in a text-book should always be so limited as to the length of time it is to be studied, or so marked out and defined as a written exercise or as a lesson to be learned by rote, that the pupil will know exactly what he has to do and have no doubt whatever as to when his task is finished.

It is an abuse of a text-book to allow a pupil, in recitation, to answer questions on a lesson from his general information or from what he may have learned about the subject under another teacher or in some other book. I have had pupils who would apparently study a lesson for hours and then not be able to answer any question in such a way as to show that they had even read over once what the book said. They would answer pertinently and correctly enough from their general knowledge of the subject, or from what I had told them by way of illustration or explanation, but utterly fail to show that they had learned the lesson in the book. The text-book might better be kept from the pupil altogether, if that is the way it is to be used. When we give a lesson in a text-book, it is the

pupil's business to learn that lesson and it is our business to see that he does it, and not something else.

I would not be understood by the foregoing to mean that I should pin the pupil down to the exact language of the lesson. Far from it. But I should insist that he give evidence that he had learned the lesson. I should accept the language of the text, if he understood it and were positively unable to do anything more; I should be better pleased if he gave the facts in his own words, especially if he used some of the words of the text in different constructions. If, having done that, he were able to enlarge upon the facts, I should give him special credit. I think, however, that a composition, or some similar exercise, where both teacher and pupils could give particular attention to it, would be a more proper place for the latter work than a recitation of a lesson in a text-book.

A mistake which it is very easy to fall into, and which is very hard to avoid, is that of allowing recitations of lessons in text-books to take up more than their fair share of the school time. Counting the study hour, it is often the case that text-books are given more time than is right. What does it matter how much our pupils know of history, geography, and grammar, if they are unable to express their every-day wants and observations in good plain English? In comparison with language and arithmetic, those studies which require text-books are of very little practical value, yet more time is frequently given to them than to either language or arithmetic. In our use of text-books we should strive, first of all, more than all, and all the time, to employ such methods that the greatest amount of practical language drill may be given to our pupils.

Finally, there remains something to be said about the corporeal abuse of books, if such a term may be allowed. It seems the fate of school books to be abused. Deaf children do not throw them around, write in them, and

dog-ear them, any more than hearing children. But that is no excuse for their doing it at all, and no reason why they should be allowed to do it without an effort being made to correct the mischief the habit of thoughtlessness in the use of books does. Much good may be done to our pupils morally, if we will bestow a little care and attention upon the wear and tear of their books in everyday use. A regular inspection of their books, and commendation of those who take pains to keep them clean and in good order, will do much to impress upon them a sense of respect and responsibility for books that cannot fail to be a help in their education in school and in their lives after leaving school.

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A NEW DEVICE IN TEACHING LANGUAGE.—I.

I SAY *device*, for it is the proper designation for all such contrivances as the one I am going to describe. The term *method* is too broad, but for the sake of variety I shall use it sometimes in this paper in speaking of this device.

Before describing the device, I should like to devote a few pages to some rambling observations that will, to a certain extent, give the reader the general drift of my thought on the very important branch of instruction, language teaching.

One of the first things that dawns upon the mind of one who begins the teaching of language to the deaf is the magnitude of the task. The thousand and one small things which he thinks are essential to a proper comprehension and use of English crowd in upon his mind, and, as he reflects upon how little progress he seems to be making, there comes discouragement on every hand.

Last winter I directed a communication to Prof. J. C. Freeman, LL. D., who now occupies the chair of English Literature in our State University, asking him what vocabulary he deemed sufficient for the ordinary purposes of life. He replied that, to his knowledge, such a thing had never yet been ascertained, but could be by going down town and keeping one's ears open, and taking notes. He had known but one person to attempt anything like it; that was Miss Kate Falrey, a graduate of the university in 1894, whose thesis was "The Vocabulary of the Railroad Employee," for whom she recorded some 3,500 or 4,000 words, a number which Professor Freeman suspects is quite too large. Instead of confining herself to the words actually used, she went through a pocket dictionary with her brother, a locomotive engineer, and no doubt made out a long list of words that even he never used in his life. So it is all too easy for the teacher to magnify his office and encumber his pupils with a lot of words that are far more a hindrance than a help to their advancement, not to mention the time thrown away on them. Moreover, it often misleads the teacher into supposing that his success depends more upon the number of words or forms he can cram into the heads of his scholars than upon the vigorous drill he can give to a few of the most general and universal terms, which in itself involves a far larger training and development of the language sense and the mind in general than anything else in this branch of our work. The fact must never be lost sight of in the preparation for the mastery of any language or science, that it is the training in its fundamentals that really prepares the mind for the proper understanding and practice of the subject in its larger and more complex relations; and while this is being done the mind itself is quickened to a keener insight into other things, as well.

It has been said, "You only half know a word when you know its meaning; it is yours entirely only when you

use it correctly and without effort." It is needless to remind my readers of the amount of practice this means. I often think that the want of practice in language on the part of the deaf leads us to exaggerate their difficulties.

Consider the advantages in the way of both hearing and repeating language hearing persons possess, to say nothing of the poetry, music, song, gestures, and the intonations of the voice, accompanied by facial expression, that ring it into the very fiber of their being. Even in reading with a view to the learning of language, sound is considered by hearing persons one of the first requisites, as the following advice, given by a professor to a large circle of readers, shows :

"Sight reading gives you thought rather than language, and for this reason it is well to read aloud whenever convenient."

Writing and rewriting the same fact, idea, event, or story in as many different ways as possible, I regard as an invaluable practice.

I find that asking questions about the same thing in as many different ways as practicable is very helpful.

This leads me to speak of reproduction, whose value lies in the opportunity it affords of repeating language forms in an intelligent way. In this connection frequent but close off-hand questioning on what is reproduced is effective in putting pupils in an intelligent relation to the subject under consideration. Below I give the substance of a bit of advice concerning reproduction and composition, given to hearing teachers, in a book entitled "Lessons in English": Spend a whole year in reproduction before you expect original work, and even then do not only tell your scholars how to write, but show them how. If teachers go so far in helping hearing children, may we not do as much for the deaf? A writer on the deaf and their education has remarked that in matters of knowledge questions have been asked the deaf of five or six

years' schooling which no hearing child of the same period of schooling should be expected to answer.

In regard to originality and variety, very little should be expected of pupils, as it is a well-known fact that even those of more mature minds are not capable of much in this direction, either among the hearing or the deaf.

Those who go on the principle that the language of the deaf will right itself in time, as in the case of hearing persons, are making a serious mistake. The probability is that it will grow worse in too many cases.

The influence of the personal element enters largely into the work of instruction, as it does into everything else. Mr. Gillespie's declaration that the pupil receives his language from his teacher, and that of Professor Blackie, that "in the acquisition of any language, whether living or dead, the commencement must be made with a living appeal from the tongue of the teacher to the ear of the learner, and this with direct reference to objects in which the learner feels a natural and familiar interest," go to emphasize this fact in language instruction in particular, the gist of both being that language must be invested with a personal interest to give it life and meaning.

I do not approve the practice of analyzing actions or processes; for example, having a child write the steps in bread-making. To say, "Mamma makes bread," is enough, provided the child has seen it done. If not, then it should be illustrated. The analyzing process leads to a habit of going into unnecessary detail, and loads the mind with a mass of material that will have to be cleared away before progress can be made. Children must be taught to think properly, for some one has said that the foundation of all good writing is proper thinking.

Language is acquired by fragments, as it were, each fragment a little whole in itself, but by use and association they are united into a greater whole, which is not out of harmony with the theory that language is a develop-

ment, whose basis of acquisition is use ; and any extended mastery of it calls for a corresponding amount of practice and reading.

Outside of the regular language work, in order to give my pupils as much practice as possible, I require them to express themselves correctly in all their other studies. They are also taught to ask and answer questions. My latest device in the latter is to put on my large slate some familiar and interesting subject, as home, school, cars, base ball, Sunday, Christmas, books, relatives, subjects of lessons, etc., and have them ask questions on their large slates under my direction, then move forward and answer them. Last year the class went through some 1,200 questions in three months. The same subject was taken twice for repetition, and all the subjects were reviewed before the term closed. Two members of the class remarked this fall, on their return to school, how much those questions helped them in their daily intercourse at home.

Then there is that great factor, observation, on the part of the pupil both in school and out, particularly during the first years of school life, which should be conducted under the direction of the teacher. It is then that the child is learning the names of things and storing his mind with material that is to serve as a basis for future operations. Referring to the beginnings of language, Bain says : " It is in associating names at once with their objects or meanings that the acquisition of language proceeds most rapidly."

We like to see things done well, particularly in the every-day affairs of life. " Perfection consists not in doing extraordinary things, but in doing ordinary things extraordinarily well."

All work, whether practical or theoretical, is comparatively useless unless intelligence is made the guiding principle. Superlatively true is this of the teacher's work, whose two highest functions in the direct work of instruc-

tion I conceive to be not only to present subjects properly and clearly, but in such a manner as to appeal to the intelligent interest and attention of the learner and to lead him into the habit of doing his own work. This way of looking at the matter, so far from depreciating memory, furnishes opportunity for the highest exercise of that faculty, not to speak of the direct ways in which it may be cultivated. Neither is it meant that everything is to be fully understood, but rather that the intellectual and moral powers should be developed in the direction of intelligent activity, for never before in the history of the world has there been a greater demand than to-day for intelligence in every department of life. Such a view of education as this will have a tendency toward the consideration of quality rather than quantity, and to prevent cramming, which sooner or later clogs and weakens both the receptive and productive powers of the mind, instead of making them vigorous and strong.

While it is now almost four centuries since Girolamo Cardano, a physician, philosopher, and mathematician of Milan, first propounded the theory "that ideas can be associated directly with written words without the intervention of sound," which was subsequently demonstrated by others beyond the possibility of doubt, it is only during the last hundred and fifty years that this fact has been given general application in the education of the deaf. Yet within that brief period it would take volumes to tell of all the "devices," "methods," and "systems" that have been called into existence by the inventive genius of teachers and others to impart both written and spoken language to the deaf.

Deafness may appear an ordinary affair, but it bristles all over with obstacles, the principal one being in the way of the acquisition of language. Figuratively speaking, this difficulty may be compared to an impenetrable wall whose top touches the sky and whose length is the cir-

cumference of the earth; and, as it can be neither removed nor penetrated, the only alternative left is to scale it. The methods and devices referred to above are a means of doing this, but how far they are successful can only be determined by the results achieved. It is all very well to talk of learning a language in the natural way with those having all the natural conditions, but when it comes to a class of persons who lack the very first of them, the natural way has to undergo more or less modification. No one regrets this more than I do, but this simple fact cannot be evaded. As a rule, so subtle a thing as language is picked up unconsciously, as it were, and that is why attempts to impart it by instruction meet with only partial success.

The very word "*method*" in language teaching is suggestive of a certain degree of unnaturalness. Method is narrow and stiff, and system is too cramping, to say nothing of its being an actual hindrance to progress by its show of completeness, as Bacon would say.

But, in spite of all this, we must have some definite and rational basis for practice, from the very nature of the case. It is well to make a strong and direct appeal to the pupil's knowledge and experience, and to his every variety of intellect, and that in the natural order of the language itself, so that while he will be induced to think, he will also have, at the same time, something to think in. A basis for practice like this will avoid mere memory work on the one hand and too great a tendency to mechanism on the other, and also prevent the scholar from using expressions that never existed except in his own imagination. Right here be it distinctly understood that we are not asking the pupil to perform impossibilities, but something that he can do if he is only obliged to exercise his mental faculties a little on the matter before him.

By his being called upon to do this, whatever he does will be more firmly fixed in his mind by the effort exerted,

and with it the order of the words in which the facts or thought are expressed. Or, to put it in another form, the mental processes involved have been reduced to their simplest form by the removal of everything that prevents him from concentrating his mind upon two things, the fact or thought, and the usual order of the words in which they are expressed. It will also give the meaning an opportunity to work into his mind, for it is a well-recognized principle in mental philosophy that neither facts nor ideas become a part of the mental furniture until they have been thoroughly acted upon by the intellect.

I offer no guide but the English language itself—no signs, no symbols, no grammar. About all there is for me to do in explanation of the method is to illustrate the use of the key, which I am pleased to call the "*inciter*."

What to do and when to do it is left for the teacher to decide, according to the stage of development the children have reached, which is the only true order of progress.

Perhaps there are some who may be curious to know how I came to develop such a device as this. One day, in the spring of 1896, I was teaching the verb *to cut*, intending to develop the various constructions connected with it, as I do not think so much of phrase teaching as formerly,* and I said, "Cut what?" which is an occasional way of speaking.

I thought no more of the matter until school opened again in the fall, when all of a sudden its possibilities flashed through my mind, and from that moment it was a constant subject of thought. One step would suggest another. I kept working at it all through the year, testing every new way of using it. I tried it in different ways with about eight classes.

Reducing the adjective to its simplest form gave me a great deal of trouble. I spoke to Mr. J. J. Murphy, a teacher here, about it. He called my attention to a small

* A phrase dictionary is better.

volume entitled "Grammar and Composition," by Professor A. L. Graebner, of Concordia College, St. Louis, Mo., which helped me out of my dilemma. The point was in regard to the use of the word "how." I wrote Mr. Graebner two letters, and in his last reply he said in part:

"Your esteemed lines of the 9th inst. have confirmed my opinion as to the correctness of your theory and practice in leading your pupils toward a proper understanding of the nature of adjectives as a part of speech."

The chief reasons which have induced me to offer the device to the profession for what it is worth are its suggestiveness, the definite appeal it makes to the intelligence of the pupil in the natural order of the language, and its tendency to fix that order in the mind, its elasticity, the varied applications that can be made of it, and, last, but not least, the encouraging results I have obtained from it.

I make no extravagant claims for this method, but think there is more good than bad in it.

We should judge of methods by their tendencies, one way or the other, rather than by the few good or bad points that may be found in them. The great danger in all such matters lies in making them too much "the whole thing," instead of looking upon them rather as a means of driving home general principles of practice.

I ask but one consideration for it; that is, that those who are inclined to criticise it will not do so until they have at least given it some form of trial.

I wish it to be borne in mind that I am not illustrating a systematic course to be followed, but in a general way showing how the device may be used in the various stages of language work, from the simple to the complex.

I might also add that, if properly employed, there is no room for "parrot" work with this method.

After the mind has received its first impressions in the usual order of the language, while it is in an open and

active state, close questioning, or rewriting, or the use of synonymous expressions, or, as a last resort, the calling up of some member of the class to render the sense in signs, may be resorted to as a test of comprehension.

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[TO BE CONTINUED.]

SCHOOL-ROOM EXPEDIENTS.

AN "expedient" is sometimes regarded as a sort of "makeshift"—*i. e.*, the adoption of an imperfect, irregular, or unworthy method of operation—because the right method or the best is not available. The term "expedient" has, properly, no such meaning. To "expedite" is, literally, to *draw out the foot* of one whose foot is stuck in the mire, entangled among brambles, or obstructed by obstacles. This may be done either by force applied to the foot or by the removal of the hindrance. In either case it is a most proper, kindly, and necessary office, especially for those who act as "pedagogues"—*i. e.*, leaders of young and inexperienced feet along the difficult road to learning. In educational work comparatively little can be gained by attempting to drag the lagging feet by force; the better way is to try to release them by removing hindrances.

Hence, "expedients" in the work of teaching the deaf are simply the best ways of removing obstacles which retard their progress.

There are many such obstacles in the way of the deaf. Among the earliest are:

1. The mistaken kindness of relatives who fail to exercise any sort of wholesome discipline in the home.
2. Ignorance, misunderstanding, or indifference, which

keep deaf children out of school for many years after they should be in school ; or delay their return each year for trifling reasons or none at all.

3. Conditions of home life which tend to undo all that the school can do to lead the child into ways of health, decorum, intelligence, and self-respect.

But these difficulties are among the obstacles that lie along the superintendent's path, and we teachers need not concern ourselves greatly about them. Our difficulties are found in the class-room. Here, again, there are numerous obstacles, at which we may only glance, connected with deportment, discipline, physical deficiencies, mental incapacity, individual peculiarities of temper and temperament, hereditary traits, and other things.

There are still other matters of great importance which often present serious difficulty, such as securing the respect and confidence of pupils ; awakening interest in things, facts, ideas, studies, and the acquirement of education ; but we cannot dwell even upon these.

The great problems of our work concern the actual methods of instruction in the particular lines of study assigned to our classes ; how to help our pupils to understand the great number of things which they meet every day, in almost every lesson, which—for them—are hard to be understood. If any suggestions may be made along this line, they will be consistent with my subject. Some of the suggestions contained in this paper are original ; most of them are derived from the experience of others, as recorded in the *Annals*, in reports of conventions, and in papers specially prepared for my use within the past few weeks by experienced teachers in some of the best schools for the deaf in the United States. The suggestions have been grouped under the heads of Language, Mathematics, History, Science, Common Things, and Practical Devices,—not because such a classification is exhaustive, but because it is convenient.

Language, being all important, comes first in order. Young classes may be led to use all forms of the personal pronoun by the teacher's writing sentences on the wall-slate, using the nouns which the pronouns should represent ; then, drawing a line through the nouns, require the pupils to copy the sentences, supplying the proper pronouns, as : " John and I took ~~John's and my~~ slates off ~~John's and my~~ desks." " The teacher told ~~John and me~~ to sit down," etc.

Elliptical exercises are helpful in various ways, especially in teaching the verb in different tenses. Write sentences containing adverbial time phrases, leaving a blank for the verb to be filled in by the pupils. Then let the pupils exchange slates and make the necessary corrections, as the teacher fills the blanks on the wall-slate.

One teacher has been successful in expressing the pluperfect tense as synonymous with " before," illustrating by a horizontal line connecting the dates, expressed or implied, while writing the verb on the line. As : " I met Dr. Brown to-day ; I had not seen him for a month ;" arranged thus :

a month ago.	<div style="display: inline-block; text-align: center;"> <u>had — seen</u> </div>	to-day.
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He also teaches the use of the conjunctions " because," " but," " that," " since," " until," " for," " when," " if," etc., by a chain of three links. In the first link he writes the principal clause, in the third link the dependent or the co-ordinate clause, with the connecting word in the small, second link of the chain. When one clause is subordinate the chain is perpendicular, with the subordinate clause at the bottom. Elliptical exercises are helpful here also—pupils being required to fill any one of the links when the

other two are given. To teach "unless," substitute it for "if" in the small link, crossing out the words "do not" in the subordinate clause.

In teaching the relative pronoun, one teacher says: "Start with two sentences, *e. g.*, 'The lady was Miss Henderson. She wore a red dress.' Then say to the class, 'You have learned to speak this in two sentences. Now I will show you another way to say the same thing in one sentence.' Then change the sentences by crossing out the pronoun 'she' and writing in colored crayon the relative 'who.' 'The lady was Miss Henderson, who wore the red dress,' or, 'The lady [who wore the red dress] was Miss Henderson.' The relative clause is bracketed and written in colored crayon. I impress the fact that the relative clause is a modifier (in signs an 'explainer'), and prove it to them in this way: 'The boy [] has blue eyes.' Be sure several boys have blue eyes, or you may fail to make your point. Then say to the pupils, 'Whom do I mean?' They almost invariably name some blue-eyed boy. 'But,' you say, 'John and Frank also have blue eyes; how can you tell whom I have in mind?' Then select something peculiar to one of the blue-eyed boys and write it in the bracketed space. Then the sentence may be, 'The boy [who wears glasses] has blue eyes.' I always write the relative clause in colored crayons, use the brackets myself, and insist on the pupils using them for a long time. Demand correct punctuation. I also use the symbol for the subject and for the predicate, because it is a help to the pupil, and if he be careless and leave out one or the other, it is easy to say, 'Here is your subject; where is your verb?' They soon learn that each clause has a subject and a predicate. I develop the possessive and objective in the same way, always starting with two sentences."

As an exercise, write a list of clauses, in irregular order, on one slate; then write, on another slate, sentences with spaces to be filled by selections from the first slate.

To develop writing original questions, write a story on the wall-slate. Have the pupils read it carefully. Then require them to ask a certain number of intelligent questions about it, admitting no question which is already answered by the language of the story. In such stories use as much idiomatic language as possible. I know a teacher who quite often comes into her school-room and writes on the slate perhaps only one word, as "yesterday." She then goes about her work and the pupils wonder why she wrote that word. Presently curiosity prompts some one to question her about it, and when he gets a proper question framed, as "What did you do yesterday?" she adds, "I went." Immediately the query comes, "Went where?" "Where did you go?" and so the story is doled out, bit by bit, but no information is given until the question has been properly framed.

For very young children I have conveyed the idea of personality in "who" by putting eyes, a nose, and a mouth in the "o."

Dialogues are helpful and furnish opportunity for the use of idioms. They may be original, placing two pupils at the same slate, the language to be afterwards inspected and corrected by the teacher, or they may be dictated in signs, spelling, or speech, the teacher representing alternately John or James, the pupils writing as the sentences are given. Or the teacher may write a dialogue on the wall-slate, leaving either the question or the answer to be supplied by the pupils. I have seen good results from the use of this exercise in the Illinois Institution. I think Mr. Roberts, of the Western Pennsylvania Institution, has also had some interesting experience in having his pupils write a fit question to apply to some statement that he has written.

Pictures may be used for language work in the younger classes by asking the children to write all the "do" words, all the "whos," and then all the "whats." A little story

may be brought out later by questions, using these same words.

A California teacher, with a beginning class, labels every object visible, leaving the name attached for a long time. She writes the name on a piece of paper and fastens it to the object.* She also writes it on the slate, and has the little ones write and spell it until they know it. If she hasn't the object, she gets a picture of it. For "busy work" with older children she gives a child an old newspaper and a pencil and lets him mark all the words he knows. She then questions him to see if he really understands all the words he has marked.

I have received from Illinois a "Correction Chart," which is used in the Jacksonville School, and which I mean to test, to some extent, in my own class. This chart is hung on the wall, where all can see it; the errors in the work of the pupils are simply numbered, and each pupil is required to make his own correction. This chart is as follows :

1. Mistake in spelling.
2. Words omitted or inverted.
3. Always use "than" with the comparative form.
4. Never use the superlative with "than."
5. Wrong use of "the," "a," or "an."
6.

I	}	like.	He	}	likes.
We			She		
You			It		
They					
7. Never use "to" after "let," "bid," "see," "feel," "hear," "help," "make," or "must."
8. Do not use a noun again when you can use a pronoun.
9. Never use "to" before adverbs.
10. Misuse of verb.

* This was also the method employed by Dr. A. G. Bell in teaching a private pupil. See the *Annals*, vol. xxviii, pp. 124-139.

11. Use of capitals.
12. Punctuation.
13. Mixed English.
14. Wrong use of pronoun.
15. "S" omitted.

The Jacksonville teachers speak quite highly of this chart. The arrangement of the order of topics might be improved by placing the simpler errors at the beginning of the list.

Miss Gordon's conversation cards are regarded as a helpful expedient for conversational language in oral classes, but might be of equal value in manual classes. She has several hundred cards with sentences, questions and answers, written on them. The questions are on colored cards, the sentences and answers on white ones. The pupils are expected to memorize these thoroughly. As an exercise, she distributes the cards to the class and the pupils in turn speak a question to the teacher, or to the class. This may be made a sort of game by the cards being forfeited if incorrectly given.*

From the distant State of Iowa I have received the following suggestion in regard to a breathing exercise: "I was much interested in an exercise in a school-room in the Illinois Institution not long since. The teacher had had her class in mind evidently while taking a glass of lemonade at the ice-cream parlor, for she had provided herself with a bunch of the straws there used, and each little pupil was enjoying the novelty of thus slowly sucking in the breath. To every thoughtful mind I am sure this simple expedient will commend itself. In the hurry of trying to accomplish so many things all at once for the pupils who often too late in life come to our care I fear we forget the old saying, 'Make haste slowly.' Surely the inactive organs should have some of the practice a baby gives itself in the 'ah goo' and other senseless tongue ex-

*See the *Annals*, vol. xxxii, pp. 34-38.

ercises so delightful to childhood. The 'k,' short 'i,' and other troublesome elements will be much more readily acquired if the tongue has first learned to obey the will of the little imitator. Let me say again, take time for many breathing exercises, and give many gymnastic exercises of the vocal organs. I am just now drilling on ba-ba, ba-va, ba-va-ba, sta-ka, sta-ka-sta, etc.,—sustained tones."

A Mt. Airy teacher says: "In order to see if my pupils could pronounce the ordinary words of daily speech, I had them read a great deal aloud, especially during the last half of the year. The reason why we have difficulty in understanding the deaf child is because of the faulty manner in which the words are joined together, and the general lack of emphasis, every word being given with equal force. It was to overcome this difficulty that the form of reading referred to above was employed. All reading of this class was done at sight. The selections chosen contained but few words with which the pupils were not familiar, so but little effort had to be expended in mere pronunciation; the main thing was to group the words properly and to give the proper emphasis. My hand rested lightly on the pupil's shoulder, and by taps and pressures of the fingers, the meaning of which was quickly grasped, I directed the accents and pauses. Clauses and phrases were indicated by a quick series of taps, the accented syllables by slight pressures, and the pauses by prolonged pressures. This assistance of taps and pressures was gradually discontinued as the pupils showed an ability to go on without it."

The tables for denominate numbers are aptly illustrated by a stairway, or series of steps; each step marked with its name and the height of the step—that is, the amount required to climb up to the next step. These are to be drawn on card-board and left upon the wall to be "absorbed" by the pupils. The same device is helpful in teaching the reading of decimals, writing the whole number on the landing, the decimals on the steps.

Another teacher writes me: "Just now several of the teachers here are much interested in the new method of teaching arithmetic in our city schools. I would recommend to all interested in putting life into the dry bones of figures the two books now published as Speer's Arithmetics (Ginn and Co.) The primary one, for teachers, is rich in quotations that cannot but inspire a teacher. The use of blocks, lines, drawings, and cuttings is so much in accord with present methods of teaching the deaf that they seem most applicable. In following this method, fractions can be no bugbear, for the child deals with them from the first and sees every step he takes. I gave this lesson the other day and puzzled some boys who think they are very wise in arithmetic :

(1) If the longest line represents 24 hours, what part of 24 hours does each of the other lines represent ?

- a. _____
- b. _____
- c. _____
- d. _____

If there are 6 hours in $\frac{1}{4}$ of a day, how many hours in $\frac{1}{2}$ of a day? In $\frac{3}{4}$ of a day? In 1 day?

How many hours does each of the lines represent if the longest one represents 24 hours?

(2) Compare 6 hours with 12 hours. With 18 hours. With 1 day.

Compare 12 hours with each. Compare 18 hours with each. Compare 1 day with each.

Answer. 6 hours is $\frac{1}{2}$ of 12 hours.

6 hours is $\frac{1}{3}$ of 18 hours.

6 hours is $\frac{1}{4}$ of 1 day.

12 hours is 2 times 6 hours.

12 hours is $\frac{2}{3}$ of 18 hours.

12 hours is $\frac{1}{2}$ of 24 hours, etc.

(3) 2 is the relation of what to 6 hours?

Answer. 2 is the relation of 12 hours to 6 hours.

(4) $\frac{1}{2}$ is the relation of what to 1 day?

Answer. $\frac{1}{2}$ is the relation of 12 hours to 1 day.

And others in like manner. I drew the lines and wrote the questions on the wall-slate. The pupils drew the lines and answered on paper."

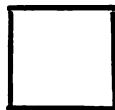
This accompanying arithmetical work was the amusement of a little girl, who had been taught by the Speer method, while spending a day in the hospital :



C.



B.



A.

C is 4 times A.

A is $\frac{1}{4}$ of C.

B is 2 times A.

B is $\frac{1}{2}$ of C.

C is two times B.

4 is the relation of C to A.

$\frac{1}{4}$ is the relation of A to C.

2 is the relation of B to A.

$\frac{1}{2}$ is the relation of A to B.

2 is the relation of C to B.

$\frac{1}{2}$ is the relation of B to C.

If C weighs 4 pounds, A weighs 1 pound.

If B weighs 2 pounds, A weighs 1 pound.

If A weighs 1 pound, C weighs 3 pounds more than A.

If B is \$2.00, A is \$1.00.

One of the best teachers of my acquaintance says : " Perhaps you would be interested in hearing how we obtained our flag. I have always kept a flag in my school-room, whether teaching history or not. This year I found the

one I had been using growing shabby and it occurred to me that we might make a 'partnership flag.' I had pictures of all the different kinds of flags used in the early history of our country, and we followed out the evolution of our flag and had several short talks about it. I bought some very cheap material and cut out the flag in the school-room, the pupils giving me directions and the reasons for them, after which I handed over the work to the girls and they did the sewing in their leisure hours. The stars were cut out and pasted on later, the names of the States being written on the stars in the order of their admission into the Union, and the names of the thirteen original colonies written on the stripes. This flag is to be eventually draped over large pictures of Washington and Lincoln, placed side by side.

"I have a chart or picture of the Presidents of the United States which I arranged last year and have found helpful. It shows at a glance the order in which they served, which ones served two terms, and whose unexpired terms were filled by Vice-Presidents. The pictures were found in an almanac.

"I have made groups of historical pictures. For instance, in one group I have the picture of a slave auction, a copy of the emancipation proclamation, followed by Lincoln's picture, then the picture of a happy family of colored people. We make these the subjects of language lessons. I have sometimes had pupils personate historical characters and write me letters describing events that happened. We also illustrate our lessons by drawings (occasionally) as hearing children do."

In teaching geography I want to have maps of the school-room, the township, county, etc., which can be spread upon the table, so that north may be north, and south south. An outline map quickly sketched upon the floor I have found helpful, using little labelled blocks, or bits of cork, to represent the school-room furniture, the

principal buildings in a town, or the towns and cities of a State, with cords for rivers, and slips of paper for streets. By using colored twine for railroads, journeys may be made, furnishing interesting language lessons. Map-drawing from memory I consider most valuable.

I have sometimes given pupils the names of the most important towns and cities in a State, and as the name was called, each one was expected to come out and take the proper relative position to those already standing. The States of the United States may be taught in the same way. This exercise may be varied, having an outline map drawn on the wall-slate and letting the pupils, as named, locate the cities on the map. As a Friday exercise I have sometimes had geographical spelling,—taking the last letter of one word for the beginning of the next, the pupil telling me the location of the point spelled, or some important fact connected with it.

The months and seasons may be taught by drawing a large circle, dividing it into twelve spaces as for the face of a clock. Make the division for winter white, or a cold blue, spring a fresh green, summer a deep, warm red, and autumn a rich yellow.* Write the names of the months on the dividing lines and the seasons on the arc of the circle. The same idea may be developed by four small circles, in different colors, lightly linked together; each circle divided into three parts.

Color I have taught by simply writing a list of colors in crayons of corresponding hue.

Reversible black-boards that may lean against the wall-slates for writing, and which for correction may be placed on an easel in front of the class, are to be found, I believe, in the Hartford School. Historical outlines, etc., if put on with a carpenter's wax pencil, will not be affected by an ordinary eraser or sponge, and general work can be

* See Miss Moffat's "Months and Seasons," *Annals*, vol. xli, pp. 186-186.

put over them. Where wall space is scarce, this is, at times, a great help when work is desired for future reference.

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THE CHURCH FESTIVAL OF THE ADULT DEAF.*

Why do you tarry outside before the door ?
Come in, my friend, and help.

In the same manner as the bright glitter of Christmas fills and elevates the thoughts of children weeks and even months before the event, the thought of the approaching church festival fills the soul of the deaf-mute the whole year through with happiness, and spurs him to a cheerful performance of duty. In fact, what can there be more elevating and beautiful in the, alas! too often monotonous and joyless life of the deaf than to receive again and again from old accustomed lips the story of our Saviour's love, and thus be fortified to combat with the trials and vicissitudes of this life? And how refreshing it is to the adult deaf to meet their school friends of by-gone days, the companions of their happy, careless youth, and at the same time to renew all the great as well as the trivial joys and sorrows of school life, and mutually cheer and strengthen one another by the exchange of their later experiences! .

* In some of the German cities "church festivals" for the deaf are held annually, and are attended by the deaf from all the surrounding country. The number present at the Berlin festival is often more than a thousand. Some German teachers disapprove of these gatherings, and hold themselves aloof from them; others take the more sympathetic view expressed in this article. The translation is from the *Organ der Taubstummen-Anstalten in Deutschland und den deutschredenden Nachbarländern* for January, 1897, by GEORGE W. VEDITZ, M. A., Instructor in the Colorado Institution, Colorado Springs, Colorado.—E. A. F.

Are these adult deaf happy to meet again their former teacher—yourself, dear reader? Did you solve the secret of winning their young hearts in the days when they were entrusted to your care, and of exerting over their susceptible spirits that influence, potent for good, that must continue beyond their school years even unto the end of their days? Do the thoughts of these hermits when their daily stint is done and the quiet hours of the evening claim their right, turn involuntarily to you, their old preceptor, bringing happy recollections in their train? Are

you the man whose image stands foremost before the spiritual eyes of your former pupils in the gloom of sleepless nights and in moments of temptation, exerting a mysterious but powerful influence, strengthening all that is good in their souls? If you are such a man, then you too must be counted among the magnets that again and again draw the deaf toward the beloved scene of their intellectual birth; nor is it strange that even those deaf-mutes whose heads are crowned with the snows of many winters, and whose forms are bent under the weight of their years, count the memories that cluster around these church festivals among the most beautiful of their lives.

This beautiful and lasting result will, however, crown your work as teacher only when one absolutely essential condition has been observed: you must yourself feel irresistibly drawn toward these children who come to your workshop and submit to be moulded by your hands with a docility corresponding to the loving kindness with which you fashion their tender souls. The departure of the pupil does not alter in the least the subtle relation that exists between him and yourself. You will then, it is true, be confronted by a fresh throng of children, bringing new and many-sided problems; still, this new task will not be so all-absorbing as to leave you no time to follow your former pupils in their path through life. Their confirmation and first communion will have removed them beyond

your immediate ken ; they may have met with many and unexpected mutations of fortune, and therefore you certainly will never miss the opportunity offered by the church festival of meeting them again and cheering them with word and deed whenever necessary.

All success depends upon a correct spiritual relation of the teacher with his pupils. It is evident that this relation does not exist where the teacher is actuated by selfish ambition and monetary considerations. Such persons often exhibit great skill in hiding their short-comings under a mantle woven out of a lot of fine phrases. How, then, can we determine the genuineness of their protestations? Go where all egotistical interests are certain to find no room ; go where there is neither fame nor honor, neither gold nor selfish pleasure, but, on the contrary, much work and often unpleasant experiences ; go to those by-ways and out of-the-way corners where live deaf-mutes of whose wretchedness the indifferent and thoughtless have not the least idea ; go where, in combination with a hard struggle for daily bread, you will often find an abject spiritual and mental poverty ; go where hearing people—may God's justice overtake them—take advantage of his infirmity to grind the face of the poor deaf-mute to increase their own wealth ; go, in short, to the *adult deaf*. The teacher whom you find there—him, I mean, whom you take unawares—is the right sort of man. But the teacher who is capable of acting as if these children, whom during their school-days he ostentatiously treated with so much devotion and self-sacrifice, no longer existed for him after the moment they go forth into the world, is a hypocrite who has never found the right cord to bind himself to the heart-strings of his pupils. The touchstone by which you will perceive the fraud or genuineness of your own character is therefore to be found in the question : “ How do you stand with your former pupils ? ” If the answer is favorable, then one day it will be said of

you : "He was not only a wise teacher, he was also the friend of the adult deaf." But if the still, small voice of your conscience gives the question a different answer ; if you regard the question as impertinent, or even absurd ; if you stand cold and unsympathetic outside, then follow a friend who is just about to celebrate the church festival with his old pupils.

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Entering a spacious hall, you observe scattered groups of deaf-mutes. Here they articulate ; there they use gestures. In one of these groups you cannot help noticing a youth who graduated but a year ago. His quiet, kindly eye rests on the form of a friend sitting opposite. Once his cheek was pale—perhaps the result of too close devotion to his books—but now his features fairly glow with the beauty of good health. You are pleased with his exterior. Without touching on vanity, he exhibits a certain care in demeanor and apparel. This is as it should be. A young man should not be negligent of his appearance, "for the apparel oft proclaims the man." But observe ; he sees your Guide. See how his eye brightens. His whole countenance becomes expressive of pleasure in a manner of which only a deaf-mute, with whom the eye is so peculiarly the window of the soul, is capable. Quickly he rises to greet his old teacher, and from his lips sounds a hearty greeting. His voice has become a little deeper and more strident, but his articulation is still comparatively good. He tells us that he is pleased with the vocation he has chosen and that his master is satisfied with him. He can also report good progress in learning his craft. Well pleased, we stroll on.

Soon your Guide meets two blooming lasses of about twenty. One of them, belonging to a well-to-do family, tells him in a low voice of her parents and sisters and brothers, and how she tries in everything to do her share of the housework. The other recounts how last year, when

threatened with a decline, she was sent for several weeks into the country to her old school-mate, now standing at her side, and that the outing helped her wonderfully. The German of the two girls is not bad, and at times even quite fluent and idiomatic. They are maidenly, modest, but yet unaffected, and a certain feminine charm and softness are mingled with a firmness that demands respect. Such a picture of blended womanhood and girlhood, sweet always, touches a tender chord in one's breast. Our schools, in which boys and girls are mostly educated together, must take pains that each of the sexes meets with the fullest consideration.

Suddenly some one steps behind our Guide, and for a moment covers his eyes with his hands. Surprised, he turns around, and recognizes in the joker a former pupil, distinguished even in his school-days for his propensity to kindly mischief. The young man, a tailor, is well and fashionably dressed. Twitted good-naturedly on this account, he answers with a roguish smile, "One must try to advertise one's trade." His unusual height arrests the eye, and he apparently wishes to increase the impression, for he wears a tall silk hat. But, really, there is no sham or shoddy about him. He has a heart as good as gold, for he has prepared a home for his dear old mother, and attends to her wants with grateful filial love.

Presently our Guide accosts a broad-shouldered youth of middle height, whose well-knit, stalwart frame easily shows him to possess a physical strength far surpassing that of most of his mates. The young man is a cabinet-maker, and an active and valuable assistant to his father in the business. In marked contrast to his broad chest, his voice sounds weak and low. But his character is strong and true, and our Guide loves to look into his honest eye. He perceives that "our athlete" has a request to make of him, but lacks the courage to express his wish. At last, however, the young fellow ventures, rather

timidly, to ask his old teacher to join himself and some others in being photographed in a group. But our Guide declines with, "Not now; perhaps some other time." Later, however, he regrets the refusal, for he has observed at nearly all their gatherings that the deaf, these people of the eye, set great store by such photographs.

But now our Guide observes a tastefully yet simply dressed deaf-mute lady of about twenty-eight. Recognizing her at once as the daughter of a physician, and a former pupil, he quickly steps up to her to greet her. She gives an account, charmingly delivered in a fairly good voice, of her present life and of a journey to Italy, and tells how happy she is not to be altogether useless, as she is charged with the education of the children of a sister, the wife of a clergyman. There is an agreeable and attractive charm about her conversation, and one completely forgets that she is deaf. Her style of expression, spiced with rare wit and humor, is highly creditable for one who is deaf, and hardly inferior to that of an educated hearing person. Particularly noteworthy is her frequent use of the colloquial phrases and interjections with which we hearing people spice our conversation and endow it with the stamp of vivacity. Our friend hears "Ah, indeed!" "Why, certainly, that is it;" "Excuse me, what did you say?" "Oh, I see!" Most of our deaf-mutes hardly ever use such expressions, and this deficiency makes their conversation something bare and cold, and therefore naturally unattractive. This lady is, moreover, gifted with a quick comprehension of what is said to her, for she is an excellent lip-reader. It is easy to see that the work begun at school was enthusiastically and successfully continued at home. She is really "restored to humanity." Before separating, our Guide invites the lady to take a cup of coffee with his family the next day. The invitation is readily accepted, and during her visit there is an opportunity to observe how well she understands how to make herself at home with children.

The joy felt by our Guide at this palpable evidence of how successfully the enormous obstacles imposed by deafness can be overcome is, however, rudely extinguished, as if by a wet blanket, by the spectacle of a group of deaf-mutes, whose stolid stare betrays their mental poverty, and whose faces are deeply furrowed with those lines drawn only by want and sorrow. The lips of these unfortunates were dumb when the portals of the school were first opened to them in the days of their childhood. The art of speech and lip-reading remained to them a mystery from which a corner of the veil only could be lifted. The little that they were able to make their own at school has been totally and remorselessly obliterated by the torrent of time. Not one word—not one single word—can force itself beyond the barrier of their lips. Only their hands speak, and their eyes rest as if with envy on their younger and happier mates. Placed in the midst of the stream of busy, loquacious social life, surrounded by brothers, sisters, and other relatives, they have become, alas! isolated, forlorn, and neglected, utterly unkenned, unkind. How simple, but how pathetic and full of meaning the pictures we see—here the *speaking*, there the *dumb* deaf-mute. I could almost believe that in all our great and beautiful fatherland the contrasts produced by the various results of deaf-mute education are nowhere so sharply and painfully evident as just at the church festival in our own city.

But what did I say? Neglected, utterly neglected? Are there not in the hall some of those whose profession should make it their duty to extend a helping hand, at least in these hours of the church festival, to these unfortunates? Does not our Guide notice how the eyes of these deaf-mutes rest upon him in mute appeal? And what does he do? See, he steps aside. He feels as if a mountain were oppressing his soul. His conscience is guilty and he is palpably ill at ease. Meeting a hearing friend, he honestly confesses that, aside from paper and pencil

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and a few natural gestures, he has no means of making himself understood by these unfortunates, devoured as they are by their hunger and thirst for a free exchange of thought. The case would not be so bad were our Guide the only teacher who must make this confession. And is he the only one? Not counting those who had to learn the finger alphabet and sign-language either because they were formerly among the tools of their profession, or because other reasons *forced* their use upon them, how many of our colleagues are able to converse with these deaf-mutes, or to serve as reliable interpreters for them, not only in the courts, but in the open marts of life? Am I right or wrong when I say that there is not one? How sad this fact must be to the wholly dumb, who have, as well as ourselves, the common right of humanity to share the joys and sorrows of life with others! We do well in our profession to strive to give our pupils greater command of speech, but in the face of such facts it is imperative also to learn the manual alphabet and the sign-language. This appeal, I fear, will fall flat with those whose sole motive to further self-improvement is the expectation of a more remunerative position. But I am confident that there are those among us who are truly willing to obtain these requisites, and thus enable themselves to bring light and sympathy where others stand silent and helpless.

But, look! What a change suddenly takes place in this mute and stony group! As if touched with a magic wand, life and motion manifest themselves, yes, some excitement even is visible, and all eyes are turned expectantly toward the door. Who is the wizard that has produced the change? A teacher? No; it is a simple soldier, a hussar. He has just entered, and walks straight to the hitherto neglected group. Their fingers fly, their faces are radiant, and there are happiness and laughter. Our astonished Guide seeks to solve the riddle. "The hussar is the son of deaf-mute parents," is the simple yet significant answer. If filial

love can accomplish this, should not your professional sense of duty prompt you to undertake a similar task?

As he is about to leave the hall, our Guide meets again the young man whose acquaintance we made first. The youth seizes his hand and points, without a word, to the group just described. A pitying smile and contemptuous shrug accentuate the exclamation to which he finally gives vent: "How ridiculous! I cannot understand a bit of it." But our Guide is touched to the quick, and with trembling lips he rejoins: "Indeed, that is a pity!" The youth is vastly astonished, for he still remembers the two great commandments of the school: "Thou shalt not make signs." "Thou shalt speak much and often." But our Guide continues impressively: "You are no longer a pupil. You have learned how to speak. It will now do you no harm to learn the sign-language and the manual alphabet. Do this soon, and thoroughly, so that you can talk with these deaf-mutes. Remember, they are your brethren and sisters." Will the admonition bear fruit? God grant it may!

Later we overtake on the street a young couple whose characteristic gestures, which, however, do not properly belong to the language of signs, together with the persistence with which they keep their faces turned to each other, at once betray them as deaf-mutes. We find the young man to be one of our graduates. Our Guide shakes his finger roguishly and asks, "Well, well, what is up?" upon which the young man, beaming with pleasure, introduces the young woman as his bride. As our Guide is well acquainted with the young man's character, and knows him to be well situated, he sees no reason why he should not enter into the happiness of the young couple, and therefore offers sincere and hearty congratulations. As soon as they see that he exhibits no surprise or hesitation, nor makes any inquiries as to the young man's wages, nor offers any objections or warnings, their

hearts open, and the happy youth pours forth the beginnings of their love story and enlarges on their future plans. As a teacher, our Guide marvels at the volubility of these deaf-mutes, and thinks to himself, "If I knew better how to sympathize with my pupils, and better how to stimulate mind and heart, I should be astonished to see how unnecessary are iron-clad rules to open the lips of the deaf—otherwise so silent—in frequent and spontaneous speech."

Finally we accompany a number of deaf-mutes to the railroad station, where a man of about thirty, in business on his own account, accosts our Guide, draws him aside into a corner, and with tears in his eyes tells him that he had proposed to a pretty, well-to-do deaf-mute girl, but had been rejected because his savings were so small. As this was the girl's first festival, and they had never met before, our Guide consoles the disappointed lover as follows: "It is fortunate that the young lady did not at once consent. You do not know her at all, and are altogether uncertain whether you would find her a thrifty or an extravagant housewife. An extravagant wife might say: 'You do not dress stylishly enough; buy better clothes. The furniture you have at home is old. We must replace it with new. Our fare, also, is not as good as I used to get at home.' Then she might with her own money buy better clothes, more stylish furniture, and more expensive fare, and at last have not a dollar left. What then? She would begin to complain of the smallness of your income, and always be unsatisfied. A poor girl, nurtured in thrift and simplicity, is preferable to one who is rich and extravagant. Wait, therefore, until you have opportunity to become better acquainted with this young lady."

Returning to the others, our Guide notices that one of them carries a winsome little girl on his arm. The parents are deaf, and the father proudly tells us that the child "can hear." The Guide strokes the cheeks of the

little one, and pleases the parents as well as the child by giving it a cake of chocolate taken from a neighboring slot-machine.

We shake hands with the departing guests, and every one shouts a hearty "*Auf Wiedersehen* at the next festival."

Our Guide strolls slowly homeward, passing in review the incidents of the day. His breast is elevated with a feeling of grateful happiness and the silent prayer, "God be with you all, and grant you hours of serene and contented happiness to sweeten your days of toil and help you bear the many privations and disappointments of life."

A few hours later the letter-carrier brings our Guide a postal card bearing over the signature of seven of our young friends the following message, written in pencil: "We are sitting here, waiting to change cars, enjoying a glass of beer and one another's company for a few minutes longer before we finally part. We thank you many times for the cordiality with which you met us."

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And now, my silent companion, do you still stand cold and unsympathetic outside? Perhaps you say, "Yes, if conditions were like this among the graduates of *our* school, I should be glad to join in their reunion." How foolish! As foolish as if the sun, hidden for days behind the clouds, were to say to the shivering floweret: "Why do you hang your head? Look joyfully up to me, you ungrateful one!" We teachers are often prone to criticise and feel hurt at the attitude of the adult deaf toward us, without calling ourselves to account for our own demeanor toward them. It should be exactly the contrary. If we were to remember how lukewarm and indifferent we frequently feel toward the deaf, both children and adults, how often the arduous work of the school-room leads to loss of temper and the meting out of undeserved punish-

ment, we should be surprised that the deaf should still show so much attachment to us as they do. It is not true that the adult deaf are as a rule ungrateful. They have often been merely led astray. I am confident that many of my readers will recall yet more beautiful instances of confidence and gratitude than those I have described. If for any reason your relations with the adult deaf are not such as they should be, you should strive, in the first place, to bring about a change. An earnest endeavor cannot be unsuccessful. You should never forget that you must first give before you can receive. The more unpromising the soil the greater the care that must be given to the plant. Our deaf are often unsympathetic, and it is therefore necessary to bring a larger measure of love and patience. If you do this, you will be astonished at the beauties you will find blooming under the influence of such warmth in the heart-garden of the deaf-mute. Then you will understand the force and truth of the words written by Pestalozzi in a letter to a friend: "I have seen an inner strength develop in children, whose universality far surpassed my expectations, and whose manifestations often not so much filled me with astonishment as touched my heart." Why, then, do you tarry outside before the door? Come in, my friend, and help in the work of fraternal love.

In this cold world, whose course is so often directed by motives of crass selfishness, it is refreshing to see how here and there the work of teaching the deaf is really a work of the heart. Genuine success is to be hoped for only under such conditions. And as among the thousands and millions of our fellow-men we find some endowed with a genius for love, like our Father Pestalozzi, or like Arnold and Roller, it is the duty of us all to lend one another a helping hand, and to educate ourselves with earnestness and sincere effort in this noblest of all the virtues. In this spirit, I beg my readers to understand me.

Friends! colleagues! let us seize the sangreal of love

and compassion, and let us each take a deep draught. Let us gather strength for our work, which must include as much as possible the adult deaf, and which is, and should be, naught but a labor of genuine love.

Love, alone, is the consummation of all the combined efforts of our calling.

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THE DEAF CHILD AT SCHOOL.

PARENTS of little deaf children are annually called upon to part from the most helpless of their family, that the future life of their children may be lightened. When they have finally brought themselves to the point where they can consent to be separated from their children, and place them in the care of entire strangers, they can but trust their action may be for the best good of themselves and their children. Whatever the age of the child, it is like placing a helpless infant among strangers, to be at the mercy of the unkindly disposed, equally with those of the opposite temperament, and the entire care, responsibility, and training of the child is taken from them.

Persons who have had long experience in the education of the deaf can realize more clearly than the parents themselves what the change means to these afflicted children; how, barring inherited physical and mental traits, characteristics, and temperaments, the teachers of the deaf can make almost anything they wish of the children entrusted to their care. The average young deaf child is the merest infant, so far as mental development is concerned, and it is only in exceptional cases that the knowledge of right and wrong has been correctly developed in deaf children, or that they have been taught to distinguish

between their own and others' personal rights, the "mine and thine." But this is one of the things they most quickly comprehend under right influence and guidance.

The only means by which most of them can assert their rights is by a fistful encounter with the party who is opposed to their personal view of matters. They have been almost absolute despots of their own homes and all connected with them, for it is easier to indulge the child than control it. The members of their own families dread them, while the neighbors have a horror of them, as a peculiar species of creature of whom they are most thankful not to have the responsibility. Whole neighborhoods draw a united sigh of relief when some small terror, in spite of kicks, bites, and shrieks, has been safely placed on board the train that is to bear it away to a place where strangers, with kind firmness, soon transform it into a child of whom none need be ashamed.

Do we ever fully realize what this sudden transition from home surroundings and home faces means to these helpless children?

There is no trouble in all of a lifetime that can quite equal the terrible hours of homesickness. I have read that Swiss mountaineers, transferred to the level plains of some parts of America, have died of homesickness; it is not unusual for children to be seriously ill as a result of this feeling. Every fibre in the body aches with a great and terrible longing for home, a sight of home faces, or a caress from a loved one. The Germans express the sensation far better than any other nationality by their one word "Heimweh." It is a sensation from the effects of which recovery is slow, though the bitterness wears off in time. A person who has once suffered deeply from it will recall that time with a shudder many years afterwards. What compassion, then, should we feel for these little ones who have no words with which to express their longing, and whom we cannot make understand

why they may not wander away in search of that which they desire so ardently.

Fortunately, children's spirits are buoyant and new interests help to dull the first pangs of homesickness, but while nostalgia endures it is a most distressing and depressing disease, and calls for the greatest patience and tenderness from those who have charge of the sufferers. Many a little one has sobbed itself to sleep and wakened suddenly in the night to a terrified remembrance of the strange faces and surroundings and a dreadful longing for home. Poor children! Innocent victims of accident, disease, or wilful disregard of Nature's laws! "Do we believe God sends these children into the world without taking bond and security of those in whose care he places them? Or do we fancy that by accident the little ones are tumbled onto this 'sorrowful star,'—little treasures in earthen vessels to be scattered to the four winds, or gathered in the dust-heap at last, and earth none the brighter for their luminosity as they struggle and strive to shine through the cumulation of grime gathered in their unchecked, undirected wanderings?" asks a writer in the *Outlook*. They are in no way different from other children excepting in the lack of one important sense. Could they hear they would speak, for it is not often that the vocal organs are impaired also, yet the lack of the one faculty of hearing has completely cut them off from intercourse with their fellows. They enter our schools at the age of seven or older, with minds almost as blank as that of an infant; their observation has been cultivated to some extent, they are capable of reasoning out simple phenomena of every-day occurrences, and they have greater physical strength. Beyond that they differ little in their mental development from a normal infant. Everything they learn is to come to them through the medium of their teachers and their associates; their sight must serve them a double purpose.

Why be surprised at their keenness of observation, or their quickness in arriving at conclusions satisfactory to themselves, though oftentimes so erroneous?

These children with the purity and innocence of absolute ignorance, some of whom have lived lives almost as free as those followed by the birds and squirrels, are carried to a strange place, put among strange people, and for the first time in their existence learn that there is such a thing as obedience and that there are others like themselves, who obey willingly the unseen force which demands this obedience. Imitative, as all children are, our new-comers speedily fall into the daily routine with their companions and it is only upon rare occasions that the refractory spirit, so rampant at home, is in evidence at school.

Another thing they soon learn is the common mode of communication among their companions, and thus the most frequent and irritating cause of their insubordination is removed. Who is to blame if the child is not sent to school, and so comes to maturity a self-indulged, undisciplined nature, ready to add to the evil and discomfort in the world?

One of the most interesting and wonderful things; to one who takes an interest in these children, is the marvellous change that comes over the small creatures within a very few weeks after their admission to school. The dulness of expression vanishes, the listless, inert carriage, the wandering eyes, all become things of the past, which never return. Life becomes a delight and holds an object other than three meals a day.

Their introduction to the school-room is a revelation, and, as time passes, the possibilities it presents to them fill them with an ambition to excel, even if it is for no more laudable an object than to beat one of their own classmates. The spirit of friendly rivalry is a commendable thing in a class or school, but that which emanates

from unkind motives is a curse, and its contaminating influence will permeate an entire school unless checked in good time.

The children come to us equals. There is no social caste nor color line known to the existence of these children ; but in course of time the superiors find their places and the inferiors sink to their proper level. This is one of Nature's laws. But just at this time one of the frailties of human nature becomes evident and favoritism begins to be shown. The superiority of certain children may be owing to one of three causes : natural endowments, superior home training and surroundings, or greater power of acquisition.

All of these are advantages much to be desired, but their possession should not blind those in charge of them to the rights and needs of their less fortunate companions.

Children are distressingly observant in some cases, and they speedily discover whether or not they are favorites and they are not slow in noting which are the preferred ones.

The first session or two, being the most democratic of mortals, they do not resent the evidence, but later they begin to draw invidious comparisons, with the result that they become quite discouraged in their efforts to equal those who have been placed above them, or they develop an active dislike and distrust of both the favorites and of those who single out individuals for marks of favoritism. They are not capable of reasoning out the why and wherefore of such treatment, though often from the point of view of thoughtless officers and teachers there may appear to be no valid objection to their course. Could these officers and teachers know all the heart-burnings, jealousies, and intrigues their action gives rise to, they would never allow a suspicion of favoritism to gain ground from their treatment of those under their charge.

A school for the deaf conducted on the plan of the majority of such schools constitutes the home of a great family for nine or ten months of the year. Within the four walls of this home should reign the greatest harmony. The first rule to be impressed upon all persons in authority therein should be absolute impartiality of treatment of the children committed to their care. The bright children should not have their superiority in that respect continually brought forward for parade; the dullards should never see the name seriously applied to themselves, nor be made to feel their inferiority at every turn.

Call a child stupid and impress the fact upon its mind, and the chances are you will never receive from it a spontaneous and eager effort; give a clever child an exalted opinion of its own qualities and you speedily reduce it from an innocent, modest little creature to an insolent young prig, whose priggishness does not grow less as its years increase. Give a child a bad character and its companions will see to it that it lives up to the character, for there is no human being quite so thoughtlessly brutal in its epithets as an indiscriminating deaf child, and it is many years before some of them acquire any sense of tact or discrimination. The hours of torture that are inflicted upon these poor backward or indiscreet children by those who have been taught to consider themselves superior mortals can never be appreciated but by one who has suffered. Every fibre in their being revolts against an injustice, but they have neither the language nor the power to express themselves, so they suffer in silence. They may be slow of movement and slower of thought, but the injustice rankles and breeds distrust, which is the forerunner of a long train of evils that leave their impress on the innocent minds of the children, and influence their actions to a very considerable extent in after life.

If Johnny is unusually dense one day, is it any reason

why he should be publicly labeled a dunce and made a target for ridicule within and without the school-room? It does not brighten his face nor clear his befuddled mind; it adds no joy to his life, and certainly none to his feeling of regard for his teacher.

Because Mary is particularly clever, is no reason she should be held up as a shining example to her less fortunate classmates; rather let them think it is within their power to become like her by application and attention. Why should Mary be taught to consider herself infallible? It does not develop in her the virtues of humility nor modesty, nor does it awaken in her a greater ambition. Too much such teaching is sometimes indulged in, to the great detriment of a class. If favoritism is harmful in the school-room, it cannot be otherwise outside. Those in authority, in and out of school, should be of one opinion on the subject, and no discrimination whatever should ever be shown, excepting possibly in the case of age or illness.

Much more trouble is made by some of those who have been singled out for particular attentions than by any other class of children. The ingenious cruelty displayed by some children is beyond belief, unless one has had personal experience in dealing with them. It is not by physical methods that they claim attention. Having learned that what they say and do is generally considered right because of their recognized superiority, unprincipled children can create serious trouble, make life for their companions a very purgatory, undermine discipline and moral training, destroy reputations and spread discord right and left, with less fear and possibility of detection in their nefarious mischief than would seem possible at first thought. Until that disturbing element is discovered and summarily dealt with, the warfare is almost hopeless. Should they be seized with a desire to satisfy a spite upon one for whom they have no particular love or to revenge

themselves for a fancied wrong, by a subtle but ingenious cunning they drop a word here and a criticism there ; they make great show of secrecy and gather about them their particular cronies, who, hoping to be in favor by being intimate with them, listen willingly to the poisonous insinuations. Thus does the mischief breed and grow until all at once the unsuspecting victim is completely snared, with no clear idea of what it is all about. Insinuations, innuendoes, open insults, suggestive shrugs of shoulders and grimaces follow in quick succession until the victim is driven in self-defence to report to those in authority, or, if too diffident for that, to endure in an agonized silence what there seems to be no means of curing.

Too rarely does the instigator of all the mischief suffer the just penalty, for, with the cunning that characterizes the whole proceedings, the cat's-paws are thrust forward to receive the punishment ; they may deserve this, but their fault is by no means equal to that of their leader.

That deaf children are much more easily influenced by one of their own number, whether it be for good or for evil, is the consensus of opinion among prominent educators who have spent the greater part of their lives among them.

Possibly one great reason for this may be due to the fact that the children are so constantly together, and have so many common bonds of interest. They have but little association with adults other than those who exercise some authority over them. In too many cases these are persons who have no real affection nor sympathy for their charges, and a child is not slow to ascertain the fact. Their natures crave love and sympathy and gentleness as much as the flowers need light and warmth and moisture that they may thrive and blossom, and without these they never show their most lovable traits.

Fear of punishment may restrain these children from wrong-doing, but in the large majority of cases hope of

favor will induce them to do more wrong. They reason that a punishment is soon over, but the possibilities of promised favors open to them an extended vista of good things, which may cover an indefinite period. Some of them are also sharp enough to know that those who will promise favors in return for some mischief bind themselves securely, for, by refusal to comply with their demands for the fulfilment of promises, they can force them by the threat of exposure. An unprincipled person is always a coward, and will fight until the last and lie desperately to cover his retreat. Hope of favor with those whom they believe to be most popular and exempt from consequences of possible wrong-doing blinds them to the right and prevents them from realizing the consequences of their acts. Their lives are so circumscribed and their horizon so narrow that the merest trifles assume disproportionate importance in their estimation, and they will cling with insistent pertinacity to insignificant occurrences or actions.

Every school has its leader or leaders; they may be models of propriety and a joy and delight, or they may be of just the opposite stamp.

An intelligent supervision of the children out of school-hours will nip in the bud much incipient mischief. In the mixed company which comprises the membership of our schools there are generally one or more of doubtful moral purity, who need very close watching, that their evil inclinations do not become obtrusive and smirch the purer minds about them. The training in morals and manners should be as closely attended to outside of the school-room as within, but in neither place should sarcasm or ridicule be tolerated. A person who can enforce discipline by no other means than sarcasm or ridicule has no business with the charge or education of children.

Persons who will fling into their faces their poverty, personal malformation, or family affairs should be given a liberal dose of their own medicine. Such conduct is par-

ticularly reprehensible coming from a teacher, as the children make their teachers their models, and one who uses such methods to enforce discipline sows most dangerous seed. Can they realize the enormity of their offence against the divine rights of these children? In a sudden passion at some trifling mistake or indiscretion, there have been cases where teachers have in their reproofs used language and epithets that have cast such reflections upon the personal character of the helpless children as to cloud their future for years after passing from the school-room. The narrowness of their lives and the limited education of many of them seem to incline them to brood more deeply over an unkindness or injustice than is the case among hearing people, whose multitudinous interests claim their attention in other channels.

The deaf have an unfortunate inclination to resurrect old grievances or past offences, and a child who has suffered a public reproof from a teacher or officer, in which there has been evinced a deliberate intention to degrade it before its companions, has an almost ineradicable stigma cast upon its character. It is to be regretted that there is no law to prevent persons committing such an unpardonable offence against helpless childhood, nor any that can hold them responsible for the consequences of their words. Children frequently require correction and reproof, but there is surely no reason why correction and reproof should take the form of abuse and degradation. One can be both gentle and firm, strict and kind, and can maintain order and command respect without either claws or an iron hand in glove of velvet.

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INTELLECTUAL HABIT.

KNOWLEDGE is habituated consciousness. We do not know a thing till the perception or recognition of it comes to us without intellectual effort. Knowledge is reflex—automatic.

For teachers and pupils alike the way of habit is the only sure and effective way. One who has to stop and think before he can act is always hesitating—always at a disadvantage. Suppose one not possessed of the faculty or habit of righthandedness. What an incessant worry and trouble he would suffer from the necessity of considering and deciding which of his two hands should perform any suggested action, and sending through the muscles the necessary nerve impulse to make it act! What if the walker, the writer, the musician were obliged to continue the mental effort and attention which the first performance of the act required!

We do nothing readily and well till we have fixed it in our physical organism, till the nerves and muscles concerned perform it of themselves without special mental effort. The possibility of this in purely muscular action is shown in everything we do with the hands, and the question arises, Is it equally true of purely intellectual acts—those performed in the nerve centres, and along the nerves? Why should it not be?

The brain and nerves are made up of material afforded by the food, and applied to their needs as similar material is to the growth and repair of the muscles. We know that in the use of the muscles tissue is constantly destroyed, to be replaced by other material during rest. The same is evidently true of the brain and nerves, indeed in a higher and more important significance. Mental labor exhausts more rapidly and seriously than muscular exercise.

In the case of the muscles, recuperation more than restores to the condition prior to exhaustion. They are enlarged and strengthened, and the capacity and inclination to repeat the act is increased. After a few repetitions this condition becomes so pronounced that there is little call for cerebral action. The performance becomes automatic. In this condition the intellectual energy may be devoted to other calls, leaving the muscles to perform their office habitually, as in the case of walking, dancing, or playing upon the piano.

Apply this to purely mental effort, not forgetting that there is as positively a physical basis for the one as for the other. There is no disputing the fact that whatever the mind may be—whether a bundle of faculties acting one at a time, or simple consciousness acting in a variety of ways—its seat is in the brain, and one's fitness for successful mental effort is just as surely dependent upon a healthy condition of the brain as it is for physical effort dependent upon the good condition of the muscles.

The brain, the chief centre of the nervous system, and so the place where the higher intellectual processes are carried on, is so ensconced and protected within the skull and other coverings that it can be affected only through the blood which enters to nourish it, and through the nerves which form the connection between it and the outer world. As the brain is as certainly nourished and repaired through the influx of the blood as are the muscles, we must agree that it is also wasted and exhausted through exercise as are the muscles. And as in the process of recuperation the muscle is rebuilt larger and stronger, and with a tendency to repeat the action, so in the repair of the brain the ability for mental effort is increased, and the preference for repeating the action in the same way manifested. As muscular action soon becomes reflexive and automatic, so does intellectual. Very slight muscular exertion produces so little effect that there

is little perceptible growth in strength and dexterity. It is so in mental work. Easy lessons, light exercises which do not tax and destroy nerve tissue, making work for the recuperative function, do little toward educating and strengthening the intellect. This seems to be true: that the afferent influence must be sufficiently strong and protracted to produce a physical change in the matter of the brain, and that, in after repairing or restoring, it is made stronger, and has a tendency to act again in the same way.

Present to a child an object, at the same time writing or pronouncing its name. At once the effect of the light or sound waves passes along the nerves to the sensorium, producing a line of effect too delicate to be called a groove or a wound, yet enough to mark the passage of the nerve stimulus. If the presentation is continued sufficiently, the path becomes permanent, and at every repetition the stimulus takes the same course with increased ease and readiness till no mental effort is required for the child to recognize the thing from its name, or to recall the name at sight of the object. In a word, he knows it, and can never cease to know it, for the record is carved in the very fibre of his brain.

If the brain exposure be sufficient to produce a definite impression, and, after the recuperative agencies have had time to repair the effect, the tendency become established, the action provided for, for all future time it will be easier to repeat the act than to vary from the set course. It is an item of stored ability.

This is Nature's way of providing for occasions when more than one call is made upon us at once, or when the emergency requires quicker action than even thought. The nerves are already trained to do one thing, and the mind is left free to direct the doing of others at the same time. If, in addition to the fact stated in history or geography, the pupil is taxed with the perception of

unknown words, he fails, because he has too much to do. Two things at once are more than any one can do. But suppose the words in which the new facts are presented are all known, carved in the brain ready for use, with no tax upon the sensorium, he will have no great difficulty in performing the one act which remains. We witness constant failures for the want of stored ability. An answer, an exercise is faulty for lack of the spontaneous timely rising in the mind of the impressions which previous work should have placed there. I have seen pupils fail to construct sentences properly because of the labor it was to form the letters. Try it yourself. Take a nice sheet of paper and attempt, without preparation, to write a note at the same time well worded and neatly executed. Between the two it will be a rare chance if the paper is not spoiled. Or perhaps you recollect when, a novice on the wheel, you attempted to deliver a polite salute and maintain your position and control of the wheel at the same time.

In daily school work the aim should be not simply to create impressions, but to fix them in the mind, and to keep them bright by frequent reference and review. This must not be so persistent and severe as to create irritation or excessive weariness, but it must go far enough to form a habit. The object of habit is to secure readiness, accuracy, and ease in performing. This is defeated if the exaction be so severe or protracted that the child, after reasonable respite for recuperation, returns to the task with reluctance and diminished force.

The quick to learn by rote are usually the quick to forget. The nerve impression is too slight and transient to produce permanent effect, or the brain is too yielding to retain impressions.

For us the most valuable suggestion from these facts is the importance of a clean, complete finish of one thing before commencing another. I have thought sometimes

that the custom of some teachers in requiring pupils to express the same thing in several ways tended to confusion. But I am told by one of great experience that he never finds such difficulty where the original or simplest form of expression is first fixed in the mind. We want to secure first the thorough habituation of the pupil's mind to the recognition of the fundamental forms of expression and the systematic groupings of the parts of speech, knowing that with certain impressions fixed the mind may be set to work upon a variety with safety—the already known helping to reach the unknown.

We need to make as much of the work as possible reflexive, that the pupil may have at hand the maximum of free activity. This can be effected only by securing at the start a perception so distinct that nothing else learned before or afterward will ever mar or confuse it.

This is well illustrated in spelling. It is singular that a child can retain in mind all the thousands of different positions in which the characters of the alphabet must be placed to form the few hundred words he wants to use. After he has laid the nerve track for "car," "carry," "cart," it is no wonder if he runs on it for "caryon" when he should write "crayon." Instinctively recognizing an object before any of its qualities or uses, it is not at all strange that he unites "road-rail," "table-dining," instead of the unnatural preposterous forms we are taught to call correct. Such blunders can be avoided only by securing a finished impression the first time. "Look at this new word! You have often written 'c-a-r,' 'c-a-r-r-y,' and 'c-a-r-t,' but this fellow is not 'c-a-r,' but 'c-r-a.' Isn't it strange? See it, 'c-r-a-y-o-n'!"

The confusion so often seen in the use of the different moods and tenses of the verb, and in giving the parts of speech their appropriate places in the sentence, arise from the same cause—want of definite first-impression. If this is secured, there will be little or no future trouble. If,

however, either through want of skill on the part of the teacher in presenting, or of attention of the pupil in receiving, such an impression is not made, and the mind is called from its incomplete work to the recognition of other objects and the performance of other operations, hopeless confusion is the unavoidable result. Tracks upon tracks, crossing and mingling, render what with judicious care would be knowledge, a confused mass of uncertainty.

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SCHOOL ITEMS.

Florida School.—The name of a teacher in this school, which was printed in the last number of the *Annals* as Miss Candace A. Yerkes, is really Miss Candace A. Yendes.

Illinois School.—The name of the *Deaf-Mute Advance* has been changed to the *New Era*. The form of the paper is more convenient for the reader than formerly, and the character of its contents is improved.

Kentucky School.—Mrs. W. K. Argo, who has been teaching since the opening of the term as a substitute for Miss Haupt, has received an appointment as teacher. Mr. Max N. Marcossou, late teacher in the North Dakota School, has been appointed teacher in the colored department.

North Dakota School.—Miss Ethel Hammond, a daughter of Mr. Henry C. Hammond, late superintendent of the Kansas School, has been appointed to fill the vacancy in the corps of teachers caused by the resignation of Mr. Marcossou, who has accepted a position in the Kentucky School.

Oklahoma School.—A school for the deaf and the blind, supported by the Territory, has been opened at Guthrie, Oklahoma. Mr. H. C. Beamer has made a contract with the authorities of the Territory to receive pupils for five years at \$275 a year *per capita*. Mr. and Mrs. Ellsworth Long have

been appointed teachers. Mr. Long is a graduate of the Kansas School and Gallaudet College, and Mrs. Long, formerly Miss Alice M. Griner, is a graduate of the Indiana School.

MISCELLANEOUS.

The Convention.—We are informed that the chairmen of the several sections of the Convention of American Instructors of the Deaf are all, or nearly all, earnestly engaged in making arrangements for the success of their respective departments in the meeting of the Convention to be held at the Ohio Institution, Columbus, Ohio, beginning on Thursday, July 28, 1898. Probably in the next number of the *Annals* it will be possible to publish a definite statement of the proposed duration of the meeting and the order of arrangements.

The National Educational Association.—The annual meeting of the National Educational Association of the United States is to be held this year in Washington, D. C., from Thursday, July 7, to Tuesday, July 12, inclusive. Two afternoons will be devoted to the Department of Educators of the Deaf, etc. The Trunk Line and Central Passenger Association have granted a rate of one fare for the round trip, plus two dollars membership fee, with extension of tickets for side excursions until August 31, and a similar rate is expected from other lines. Dr. Gordon, the President of the Department, says in his "Bulletin No. 1":

The object of our Department is twofold: First, to bring our work as educators of the deaf more prominently before educators in general, bringing them into sympathy with this work, and, second, to bring ourselves more closely into touch with the best educational thought of the day and into better acquaintance with its representatives. * * *

The purpose of the Department is not to supplant any older organization. It is evident that the time at its disposal is too brief for the work demanded of the conventions and summer meetings, but it is hoped that hereafter such meetings will be so arranged as to render it practicable and economical for those attending them to avail themselves of the rates to the National Educational Association in attending the special meetings. In general it is an easy matter to arrange the time and place of meeting

so as not to conflict with the date of the N. E. A., and yet enable instructors of the deaf to avail themselves of the advantages of both meetings at a very moderate outlay of money.

Teachers of the deaf expecting to be present at the meeting, and those desiring to contribute to the program, are urgently requested to inform Dr. J. C. Gordon, Superintendent of the Illinois Institution for the Deaf and Dumb, Jacksonville, Illinois, definitely of their purpose as soon as possible. Suggestions are also invited as to how the time allowed for the work of the Department may be most pleasantly and profitably employed.

"The Little Deaf Child" (published by the McCowen Oral School), Volume I, No. 5, is devoted to the proceedings of "The Round Table," held in connection with the meeting of the Association last year. Some of the addresses delivered are given in full, and extracts are made from others.

The Church Mission to Deaf-Mutes.—We are indebted to the Rev. Thomas Gallaudet, D. D., the founder of this beneficent Mission, for the following report of its present condition:

The 25th Anniversary of this Society, incorporated in 1872, to promote the temporal and spiritual welfare of adult deaf-mutes, was held in St. Bartholomew's Church, N. Y., Rev. Dr. Greer, Rector, on Sunday, December 19th, at 4 P. M. The Bishop of New York, ex-officio President of the Society, encouraged its peculiar work by his presence and endorsement.

The Church Mission to Deaf-Mutes having pioneered church work among the silent people throughout our country and opened the way for a number of clergymen, five being deaf-mutes themselves, to labor under various bishops and rectors, is now limited in its operations to the dioceses of New York, Long Island, Newark, and Connecticut. Its missionaries hold sign-services in ten different places, and have been blessed in leading many deaf-mutes to baptism, confirmation, and the holy communion. While educated deaf-mutes can read the Bible and the Book of Common Prayer, they enjoy a special pleasure in services which are conducted in the sign-language. Signs are to the deaf what sounds are to the hearing.

The new St. Matthew's Church in West 84th street, near Central Park, provides a service for deaf-mutes every Sunday at 3 P. M., and will, in due time, build St. Ann's Church for Deaf-Mutes for their exclusive use, with a pastor of their own. St. Matthew's Church and The Church Mission to Deaf-Mutes are two entirely distinct corporations. The former

does a local work. The latter has a large and increasing field in the dioceses before mentioned.

The Church Mission to Deaf-Mutes needs a charity fund of seven or eight hundred dollars a year, so that its missionaries can minister to those who from time to time raise signals of distress in the battle of life. While the great majority of our silent brothers and sisters are doing well and supporting themselves, some are always found in sickness and trouble. Those out of work must be assisted till they can get situations. The Society's representatives are constantly busy in helping deaf-mutes to find employment. Several from time to time are aided in paying funeral expenses.

The Church Mission to Deaf-Mutes owns a farm of 156 acres by the Hudson river, between New Hamburg and Poughkeepsie, on which it has established The Gallaudet Home for aged and infirm deaf-mutes in the State of New York. Religious services are held in its chapel, the holy communion being celebrated on the second Sunday of the month. Three of the inmates are deaf and dumb and blind. Several have imperfect sight. All the members of this afflicted family have been educated, but have become disabled physically so that they cannot earn their own living. This Home is supported by charitable gifts. It has an endowment of \$15,000. A mortgage of \$7,500 rests on the property. It is hoped that this may soon be cancelled.

During the year ending September 30, 1897, the Church Mission to Deaf-Mutes has received and expended for its general work, including the moderate salaries of its missionaries and its charity fund, \$6,755.93, and for the support of the Home, \$5,186.38, in all, \$11,942.31. About \$600 additional have been paid for interest and insurance, making the total \$12,542.31. Another thousand could be judiciously used.

The trustees of the Church Mission to Deaf-Mutes and all their co-workers hope that this brief statement of its important field will gain new friends and increase its efficiency.

Convention and Conference Proceedings.—We are frequently asked where and how copies of the Proceedings of the several Conventions of American Instructors and Conferences of Superintendents and Principals of Schools for the Deaf may be obtained.

The Proceeding of the First, Second, and Fourth Conventions are out of print. Reports of them, however, may be found in the third, fourth, and ninth volumes of the *Annals*, and most of the papers contributed to them were also published in the *Annals*.

The Thirteenth Convention was held in connection with the

World's Congress of Instructors of the Deaf at Chicago in 1893. The Proceedings of the Congress and the Convention may be obtained of the editor of the *Annals*, price one dollar; to subscribers to the *Annals*, half-price. Eleven cents should be added for the prepayment of postage.

The Fourteenth Convention was held at Flint, Michigan, in 1896, and the Proceedings were published by the Convention. They are furnished free of charge to members of the Convention; others may obtain them of the Secretary, Mr. F. D. Clarke, School for the Deaf, Flint, Michigan. The price is one dollar a copy, with the addition of fourteen cents for postage.

The Proceedings of the other Conventions, until the supply is exhausted, may be obtained free of charge from the principals of the institutions where they were held. It would be proper, however, to send a sum sufficient to pay postage on them—say, ten cents each. These institutions are:

Third and Ninth Conventions: Institution at Columbus, Ohio.

Fifth and Tenth Conventions: Institution at Jacksonville, Illinois.

Sixth Convention (First Conference of Principals): Institution at Washington, D. C.

Seventh Convention: Institution at Indianapolis, Indiana.

Eighth Convention: Institution at Belleville, Ontario, Canada.

Eleventh Convention: Institution at Berkeley, California.

Twelfth Convention: Institution at Washington Heights, New York city.

The First Conference of Principals was reckoned as the Sixth Convention of Instructors, and is mentioned above.

The Proceedings of the Second Conference, held at Flint, Michigan, are out of print.

The Proceedings of the Third Conference were not published except in the *Annals*, vol. xxi.

The Proceedings of the other Conferences may be obtained in the same way as those of the Conventions, as follows:

Fourth Conference: School at Northampton, Massachusetts.

Fifth Conference: School at Faribault, Minnesota.

Sixth (Gallaudet) Conference: Institution at Jackson, Mississippi.

Seventh Conference: School at Colorado Springs, Colorado.

The Proceedings of the First and Second Conventions of Articulation Teachers were not published, but brief reports were given in the *Annals*, vol. xix. The Proceedings of the Third Convention, held at the Institution for Improved Instruction, Lexington Avenue, New York, may be obtained from the principal of that Institution.

The Proceedings of the five summer meetings of the American Association to Promote the Teaching of Speech to the Deaf are furnished free of charge to members of the Association; address the Treasurer, Mr. F. W. Booth, Mt. Airy, Philadelphia, or the Secretary, Dr. Z. F. Westervelt, Institution for Deaf-Mutes, Rochester, New York.

Charitable Institutions.—We mentioned in the *Annals* two years ago (xli, 353) a decision of the Supreme Court of New York that schools for the deaf and the blind, being chiefly educational in their purpose, were not properly classified as charitable institutions, and were therefore not under the control of the State Board of Charities. This decision was reversed by the Court of Appeals on the 12th of October last, in the case of "The People of the State of New York *ex rel.* The New York Institution for the Blind, respondent, against Ashbel P. Fitch, Comptroller of the city of New York, appellant." The ruling of the Court of Appeals is that "it is not necessary that an institution should be wholly charitable to fall within the provisions of the Constitution and the statutes placing charitable institutions under the supervision and rules of the State Board of Charities. It is enough if the institution is partly charitable in its character and purpose."

The *Mentor* for February, 1898, says that the Commission of Statutory Revision of the State of New York is preparing a bill which, if passed, will place the education of the deaf and the blind under the sole direction of the State Superintendent of Public Instruction, and will eliminate from the law any suggestion that the pupils are considered as recipients of charity. Provision is also made in the proposed act for a modified form of compulsory education for the deaf and the blind.

President Gallaudet's Observations in Europe.—Mr. A. Frese, of Riehen, Switzerland, reviewing in the *Berlin Blätter für Taubstummenebildung* of January 15, 1898, President Gallaudet's report of his visit to Europe last summer (*Annals*, xlii, 282-299), says that President Gallaudet attaches undue importance to the opinions of the adult deaf as expressed in their various societies, the members of which blindly follow a leader who understands how to manage them; that if in the schools he "found nothing essentially different from what he observed thirty years ago," and if he found "the utterance of many children who were allowed to speak (presumably those who spoke best) difficult and practically unintelligible," he evidently did not listen well, or he has less hearing than simple laymen, who in their occasional visits to the schools have the pleasure of understanding every word; that until he names the schools where "his knowledge of the sign-language enabled him to observe that teachers and pupils regularly resorted to this means of communication," the charge of such unworthy smuggling must be regarded as a calumny; and that if any "principals and teachers assured him that they would gladly accept and make use of the signs of the manual method, were not such a course forbidden by superior authority," it could not have been German teachers who thus pitifully beamed themselves before a foreigner.—We may add that the German translation of President Gallaudet's article, upon which Mr. Frese's criticism is based, while generally correct, does not render his statements with perfect accuracy in all respects. For instance, President Gallaudet did not say that "teachers and pupils *regularly* resorted to this means of communication," but that he recognized "*frequent* resorts" to it; he did not say that "principals and teachers assured him that they would gladly accept and make use of *the signs* of the manual method," but that in conversations with principals and teachers he was assured that "*features* of the manual method would be gladly accepted and made use of."

Deaf Artists.—The *Silent Worker*, itself always so well printed and beautifully illustrated that it may be called a per-

ennial work of art, makes a special "art number" of the issue for January, 1898. It contains biographical sketches and portraits of several deaf artists, most of whom have been mentioned in the *Annals* at various times, but with less fulness than in this number of the *Silent Worker*. The artists named are H. Humphrey Moore, Grenville S. Redmond, Theophilus d'Estrella, Douglas Tilden, Charles J. Le Clercq, John G. Saxton, Cadwallader L. Washburn, Jacques Alexander, Albert Ballin, A. M. Blanchard, Thomas Davidson, Alexander McGregor, Rene Princetean, William Agnew, and Harry Ash. The same number of the *Silent Worker* contains an offer of a prize for the best drawing, 7 by 10 inches, in either pen-and-ink or wash, illustrating some scene in the poem of Maud Muller, designed and executed by any pupil in any school for the deaf in the United States except the New Jersey School. The New Jersey School is excluded from the competition in order that there may be no possible suspicion of partiality.

An Exceptional Case.—Dr. J. C. Gordon has the following article in *The New Era* of January 15, 1898 :

A YOUNG LADY'S COMPOSITION.

The following composition derives its interest from the fact that the writer is a hearing and speaking young woman now twenty-one years of age, who has spent the most of her life on a farm with her deaf and dumb father and mother. She is now attending a public school in a city, and this composition was written as a school exercise and submitted to the superintendent of the city schools. A memorandum concerning the hearing and speaking young woman, who has grown up in a family using the deaf and dumb sign-language exclusively in isolation from the hearing and speaking world, states that her articulation is very imperfect and her speech is sometimes unintelligible. In conversation she does not express herself in complete phrases and sentences, and curious inversions of words are noticeable. Her natural ability seems to be good, but her range of knowledge seems to be strangely limited. Here is the composition :

THE DOG.

A dog has black and white spots. He is name Rover. He is two years old now. Mr. S— takes a dog and gave to me. I am very glad to get a dog.

He is sleeping in a Kennel and stays in the house of night.

He is very good watching for some tramps come here and knock at door and he would chase them and ran away. He often barked and bite somebodies.

He was catch mice, rats and moles. He would chase the rabbits, but he did not catch a rabbit ran speedily. I reply the dog come here and stand up and eat somethings. He is living stay here and one year. He is pretty large dog. We like him very much. We have pet him.

The superintendent remarks that this young woman "talks the deaf and dumb language perfectly." Further comment is superfluous. The young woman has fairly mastered all the elementary sounds through drill, but to combine these sounds into words is for her a very difficult task. Her superintendent says, "I believe her backwardness in the use in speech is wholly due to her isolation with her deaf-mute parents."

So far as our observation goes, the case cited by Dr. Gordon is exceptional. True, we should expect that the experiment of allowing the only child of imperfectly educated deaf parents to grow up in almost complete separation from hearing people would result as this one seems to have done; but we never before heard of an instance where the circumstances were such as to permit the experiment to be tried. Usually the children of deaf parents have so much of a hearing environment from other relatives, from neighbors and friends, and in their school life, that they acquire speech as readily and correctly as ordinary children. In many cases it has been remarked as a curious fact that in school they excel other children in the fluency and accuracy of their command of language, and it is probably the case that a larger proportion of them than of people in general have attained success in after life.

Text-Books in Language.—A second edition, revised and enlarged, of Dr. Richard Elliott's "Lessons in Elementary Language for the Deaf" (reviewed in the *Annals*, xxxvi, 143), has recently been published. "In this edition some new lessons have been added with the view of further developing the action teaching recommended, and principally for ensuring the acquirement of the nomenclature of the common and ordinary actions of life which present so much difficulty to a deaf child unless it is specially taught."

The long-promised lessons in English on the Gouin or "Series" method, adapted to the instruction of the deaf, has at last appeared, thanks to the persistent and devoted efforts of Miss S. E. Hull, of Bexley, Kent, England, who is a zealous adherent of the method. The first book is entitled "Scenes

of English Life, Book I, Children's Life, by Howard Swan and Victor Bétis, with a preface on the use of the method for teachers of the deaf, by Susanna E. Hull." The publishers are George Philip & Son, London. The *British Deaf Monthly* for January, 1898, contains a report of a paper on this method, read at a meeting of the National Association of Teachers of the Deaf held in London December 4, 1897, by Mr. P. Dodds, of the London School-Board Classes. Mr. Dodds has used the method in his classes for eighteen months, and regards the results obtained as more satisfactory than those yielded by any other method of teaching language to the deaf. Among the original compositions by his pupils that he read in support of his views was the following from a boy eleven years of age, who had been taught solely by this method, and had been under instruction eighteen months:

<i>Verbs (past).</i>	<i>A cat caught a mouse.</i>
heard and looked came and —	A cat heard a mouse, and it looked at the hole. A mouse came out of the hole, and a cat (<i>wriggled</i>) its body.
umped and caught clings and played	It jumped on a mouse, and it caught it. It clings a mouse with its claws, and it played with a mouse.
dropped and bited	It dropped it on the floor, and it bited a mouse with its teeth.
killed and ate	It killed it with its teeth, and it ate the mouse.
went and lied down	It went to the fire, and lied down on the rug.
sleeped and opened	It sleeped on the rug, and opened its eyes.
stretched	It stretched its legs.

"*Stories, Old and New.*"—Mr. George M. Teegarden, a teacher in the Western Pennsylvania Institution, who was one of the collaborators in the production of the valued "Rain-drop" twenty years ago, has published a similar book of stories adapted from various writers in prose and verse. The selections are judiciously made, and the language is so simplified as to be well adapted to the reading of deaf children. The title of the book is "Stories, Old and New." It makes an octavo volume of 223 pages, and is neatly printed at the Western Pennsylvania Institution. The Institution offers it for sale, substantially bound in cloth, for fifty cents a copy.

The Silent Messenger.—The scope of the *Silent Messenger*, hitherto chiefly a missionary magazine for the adult deaf of Ireland, has been much widened by adding a teachers' department and including the educational and general interests of the deaf throughout the world, but especially in Great Britain. It vigorously combats "the unsound theory that any single method of instruction existing to-day is sufficient to educate *all* the deaf of the world in the full sense of that comprehensive term," and also "the ill-founded notion that in the education and life of the deaf the manual alphabet and sign-language are unnecessary and injurious." The editors of the new series, which began with the number for January, 1898, are Messrs. J. A. Tillinghast and W. E. Harris, of the Belfast Institution; the publisher is Mr. F. Maginn, 11 Fisherwick Place, Belfast, Ireland. The *Messenger* is published monthly, and the price is 1s. 6d. a year.

Reports Received.—We have received the following Reports of Schools and other organizations for the benefit of the deaf:

REPORTS OF SCHOOLS, published in 1897: Arkansas, Braunschweig (Germany), Buenos Aires (Argentine Republic), Clarke, Columbia, Florida, Genoa (Italy), Glasgow (Scotland), Groningen (Netherlands), Indiana, Maryland, Mississippi, New York, Northern New York, Ontario, Rotterdam (Netherlands), Royal Cross (Lancashire, England), Venersborg (Sweden), Virginia.

REPORTS OF CHURCH WORK, published in 1897: New York Church Mission; Central and Western New York Church Mission; Pennsylvania Diocesan Commission; Royal Association, London.

Report of the Proceedings of the Fifth Summer Meeting of the American Association to Promote the Teaching of Speech to the Deaf, held at the Pennsylvania Institution, Mt. Airy. Rochester, N. Y., 1896, 8vo, pp. 276.

Report of the Committee of Council on Education on Schools for the Blind and Deaf, with Appendices. London, 1897, 8vo, pp. 32.

Report of the College of Teachers of the Deaf and Dumb. London, 1897, 12mo, pp. 27.

ADVERTISEMENT.

A HEARING teacher with 6 years' experience desires a position. He is a married man; English; age 28. Has good references. Address H. L. I., Box 324, Rat Portage, Ontario, Canada.

AMERICAN ANNALS OF THE DEAF.

VOL. XLIII, No. 3.

APRIL, 1898.

SOME CONSIDERATIONS TOUCHING THE DEVELOPMENT OF DEAF-MUTE EDUCATION TO A SCIENCE.

THE light of the sun, without which all the palpitating life of our world would quickly sink into death's chill darkness, has become such a commonplace of daily acquaintance that we seldom pause to consider how much we owe to it. In like manner the very children on the streets have become so accustomed to the multitude of blessings poured upon us by modern Science that they feel no surprise when a mile of street-lamps starts into brilliant incandescence at a flash, or when they see a heavily loaded street-car move steadily up a hill impelled by an invisible force. Yet the plague of a month's Egyptian darkness would not fall upon men with a more fatal destructiveness than a single day's cessation of those forces which Science has placed at the service of mankind within the present century.

Some serious reflection along this line, however, may bring us to a partial realization of all the comforts and conveniences we owe to Science. But not content with comparatively material results, before which the civilized world already stands in admiring wonder, insatiable Science is invading immaterial worlds which have been hitherto neglected because considered too unfruitful of practical

results or else too difficult and elusive. It is seeking to discover and define the innermost laws of human life, taken both in the individual and in the social aggregate.

The life and controlling principles of the human mind, not only as found at maturity, but as traced in slow development from the infant's first inarticulate cry ; not only as seen in the normal type, but in various typical deviations from the normal—all these matters, of such vital significance to humanity, are now coming in for that patient, infinitely painstaking study which, in every department of human activity, has overthrown innumerable obstacles and won, step by step, fresh secrets of immense importance from the heart of Nature. In a word, nearly every sphere of human interest has begun to feel the irresistible power of the Scientific Method, bringing forth, wherever it goes, unnumbered benefits of practical value, discovering and pointing out to toiling men the paths of least resistance, and rendering their labor a hundred-fold more fruitful.

Seeing, then, how beneficent a friend, how powerful an ally, is this widely conquering Science, it is but natural that we should now begin to inquire how far our own particular sphere may have come under its sway ; to ask whether our own work has yet felt the transforming touch of that magic wand before which confusion gives way to order and difficult paths are made easier. If astronomy can foretell the movements of heavenly bodies, if geology can predict the probable presence or absence of a given ore in a given locality, if bacteriology can show us how to conquer small-pox and diphtheria, is it not time for us laborers in a difficult and perplexing field of work to feel that master-power coming our way ? Unquestionably, we should hail its coming with pleasure, and do everything in our power to hasten that event.

Meanwhile, we must acknowledge that it has not come. There may be those who would challenge the statement that deaf-mute education is not yet by any means a science.

Let us examine the matter, therefore, very briefly but with some care. Without entering into a minute and extended exposition of what constitutes a science, let us get clearly before us in broad outline the principal characteristics of any true science.

In the first place, there must be a distinct subject-matter which naturally differentiates itself from that of any co-ordinate field of investigation. Astronomy has for its distinct subject-matter the stellar universe, while chemistry seizes upon the atomic constituents of all material things. Thus, each science must, as a first condition to separate existence, disengage from out the mass of accumulating knowledge a subject-matter peculiar to itself. It cannot be disputed that we educators of the deaf have a field of study and work which entirely fulfils this requirement. But of this more presently.

In the second place, there must be something like an organic body of definitions and principles, logically evolved from a thorough study of all the subject-matter, and naturally grouped around the central theme. Inseparably bound up in this systematic arrangement of knowledge must be found at least a fairly good classification, by which the confused multitude of things dealt with is reduced to a conceivable order of types and sub-types, as is seen almost to perfection in botany. In so far as confusion of ideas, incoherency of principles, and lack of broad harmony in essential opinions prevail in any given field of knowledge, to that extent does it fall short of being a science.

In the third place, there must be a large measure of general recognition accorded to this main body of definitions and principles, as the working basis for all interested therein, until it is modified by further progress. So long as the workers in any special department of knowledge are all at sea among themselves as to the definitions, classifications, and general principles to be acknowledged by them, just so long will they be unable to assume the

dignity of possessing a science. In these days, to be recognized as such, a science must exhibit to the world a more or less compact body of special workers, who present a solid front as to the essentials of their specialty, though differing without end, it may be, in matters of subordinate detail and practical application.

And last, but far from least, perhaps even most of all, the world must see in the hearts and minds of these workers that fine spirit of loyalty to the truth which unflinchingly yields all personal interests and prepossessions to the demands of fact—the thing that *is*, irrespective of what we once thought it to be, or said it was, or very much desire it to be. Men have found it hard to learn this supreme lesson. They have waded through seas of blood, they have clung to falsehoods with pathetic tenacity, they have fought with desperate, deluded courage against the march of unwelcome truth, only to find in the end that humble submission to the arbitrament of fact is the best way. By doing so for a generation or two we have made the lightning our messenger, and superhuman force our most willing slave. No department of investigation and study can truly claim the title of science till its votaries have attained more or less perfectly this exalted-spirit, and are actuated by it in all their sayings and doings.

Even in the light of this very imperfect sketch of the prime requisites of a science, it becomes quite clear that our own work of deaf-mute education cannot yet lay claim to that proud title, although it is certainly making creditable progress in that direction.

It has a sufficiently well-defined subject-matter, as we shall see. But it fails anywhere to present an organic body of definitions, classifications, and generalizations. The plant-world furnishes the theme of botany, and botanists have everywhere agreed practically upon a certain great system of classification and upon the general

biological laws of plant-life. Economists find their field in the study of exchanges, and have generally agreed upon the fundamental laws of exchange and upon certain great types of exchanges. We look in vain for such a condition of affairs among educators of the deaf, for there is still multitudinous diversity of opinion and practice among us, involving even the fundamentals of our work. Finally, we still lack a preponderating majority of investigators in our field, drilled in the scientific method, inspired with the scientific spirit, and intent solely upon gathering innumerable facts first and formulating theories afterwards—theories that grow irrefutably out of a systematized mass of facts. In a word, we all have still much to accomplish before we may dare to proclaim our work a full-fledged science.

It is not intended here to hint that any are to blame for this rather disappointing acknowledgment. The evolution of every science is a long, slow process. As one has written: "Many men in many lands must give thought and work to the matter in hand till slowly a science stands forth to view in full outline, if not in perfect detail." But meanwhile it will be well for us to take a note of our present position in the evolutionary process, that we may determine clearly, if possible, what lies next ahead for us to accomplish.

Have we grounds for believing that we shall some day, not so very far in the future, arrive at the level of scientific organization and practice in the conduct of our work throughout the world as educators of the deaf? It seems entirely reasonable to think so. Let us enter into the matter a little by way of surveying our ground.

The development of organized knowledge has already proceeded so far that there is almost a science of sciences, with its several principal groups, each comprising subordinate special sciences down to the second and third degree of subdivision. To such an extent has this gone that some

careful discrimination is frequently required to determine exactly where a given field of study should be placed in the family of sciences. Before proceeding further, therefore, we should ascertain the exact position of our would-be science of deaf-mute education in the general hierarchy of sciences.

Glancing over the whole body of modern knowledge, regarded as broken up into its constituent sciences, we perceive almost at once a certain plane of cleavage which roughly divides them into two great classes, viz: on the one hand, those which have been developed outside of and apart from the things with which they deal, originating purely in the region of thought and intellect; and, on the other hand, those which have slowly and tentatively grown up as the combined result of thought and the practical efforts of men day by day to increase the efficiency of some field of working activity. As examples of the former, we may take mathematics, astronomy, political economy; and of the latter, take medicine, jurisprudence, pedagogy. One readily perceives, for instance, that political economy is a product of pure thought working externally upon observed facts, while the science of jurisprudence is a complex result to which not only the thought of many men has contributed, but also their actual experiences, their successes and failures, in the practical endeavor to maintain justice among men through the instrumentality of laws and courts.

Assuming that this definition of two great classes of sciences has been made tolerably clear, it becomes quite evident to which of them our proposed science of deaf-mute education belongs. It is most emphatically not an affair to be developed by mere Aristotelian reasoning dealing from outside with the various phenomena of deaf-mute education, but a system of knowledge and practice to be empirically developed, as actual experience may dictate, from thousands of cases. This, in fact, is the only sound de-

velopment for that class of sciences to which ours will belong—sciences which undertake to inform men how they should deal with their own kind, whether as subjects for education, for government, for religious redemption, or otherwise. It will do to study the stars without going to live upon them; it may do to study the problems of labor without becoming a laborer, but it will ever prove vain foolishness to study medicine without visiting the sick, or educational science without living among children. Our science of deaf-mute education, then, must unquestionably belong to the great class of empirical sciences, as contrasted with academical sciences.

But, again, we have the already familiar classification of the sciences into the exact sciences and the moral or inexact sciences. The former are characterized by absolute precision in their laws and generalizations, allowing quite freely the process of deduction. The latter, however, are characterized by unavoidable vagueness in generalization, much use of the principle of averages, and the statement of laws to which there are many reservations and exceptions, the whole permitting but small scope for deduction regarding particular cases. After this brief restatement of the defining characteristics of the two classes, it becomes immediately apparent that our science would fall into the group of inexact sciences. In our work, for instance, we could never hope to classify our pupils into definite types with mathematical precision, to lay out our several processes of education with the exactness of the laws of motion, or to deduce from our generalizations the truth regarding a given child without a single tentative trial.

Briefly recapitulating, we find that our prospective science of deaf-mute education is placed in the great family of sciences, as follows: (1) It must be one of the empirical sciences, which means that we may put little dependence upon mere *a priori* reasonings concerning

the things of our profession, but must set to work to build up patiently an edifice broadly founded upon a basis of world-wide experiences and observations, industriously recorded, brought together, and systematized; (2) it must be one of the inexact sciences, which means that we cannot expect at the best ever to attain clean-cut precision in our generalizations and methods, as may the astronomer or chemist, for example, nor to make mere deduction serve our purpose in determining the particulars regarding each new case as it comes to our hands, without tentative trials and tests that will require time and trouble. Nevertheless, there has been immense gain in metaphysics, economics, etc., by reaching the condition of even inexact sciences, and so would our work secure very great advantages by attaining a like level. In a phrase, then, our science would be correctly defined by calling it an inexact empirical science.

Some may be inclined to ask at this point what advantage is gained by all this painstaking care to decide just what place our own would occupy in the family of sciences. The advantage lies simply in this, that—like some military commander planning a campaign—we first survey the country lying before us, determining what position we may hope to occupy, and how we shall then stand in relation to others, besides indicating roughly the paths by which we must travel toward our goal. By such a process of analysis and progressive exclusion we mark down our starting point to-day, measure our possibilities, and map out the course we must pursue, if we would not blunder confusedly onward, without definite plan or purpose.

Now, however, having accomplished such a survey, very hurried and inadequate but, perhaps, sufficient for present purposes, we may pass on rapidly, taking up in order certain other considerations bearing upon this important subject.

Reference has already been made to the fact that our field of work fulfils the first requisite of a genuine science, namely, it possesses a distinct and definite subject-matter. Pedagogy at large deals with the whole subject of educating youth, including all children and all educational processes. But under this general head several subdivisions are differentiating themselves. Our own work will constitute one of these. The generic term being "Education," our special subdivision may be designated by something like "Deaf-Mute Education." Future progress may develop some better title, but at present none seems to suggest itself which is not either cumbrous or otherwise objectionable. Those who would object to the term "deaf-mute" on the ground that not all deaf persons are mute should remember that *previous to education*, and therefore while subjects for educational science, the deaf *are mute*. The raw material of our educational science will certainly be deaf-mutes, even though a large proportion of the "finished product," so to speak, may reach a point where the adjective "mute" no longer applies to them. It would appear, then, that the convenient compound term "deaf-mute" is sufficiently accurate for present purposes in enabling us to specify without awkward circumlocution that particular subdivision of Educational Science to which we shall belong.

When we come to determine exactly what should form the subject-matter of our Science of Deaf-Mute Education, we discover that it must be twofold in its nature, being more akin in this respect to the science of medicine, for example, than to that of astronomy. In a single term, the stars, you can accurately name the subject of astronomy. Not so with medicine, for this has a double aim—to study the diseases of men, and also the processes of curing them. Similarly in our own work we have a twofold object.

First, we have a certain class of children distinctly marked out by an unusually emphatic type-characteristic—

deafness. This single word outlines instantly the boundaries of our sphere. Our science will have to deal with all children, of whatever race or locality, who are isolated from their environment by deafness. In the wake of deafness follows dumbness, and a whole series of psychological phenomena of the greatest significance to all educators, requiring special investigation and handling. To carry on this special investigation for the promotion of accurate knowledge regarding the psychological consequences of being isolated from society by deafness must be one, therefore, of two parallel aims.

And, second, we have complex and difficult educational processes by which to gain control of the psychological life of these children, both stimulating and guiding growth into ultimately normal maturity.

These processes have been evolving for some two hundred years, and have already attained a wonderful degree of complexity and efficiency. No one, however, imagines for a moment that they have reached perfection. An immense amount of work remains to be done in this direction, and herein lies the second of our two main objects.

The twofold subject-matter of our proposed science comprises, then, a thorough study of the psychological development of deaf children, leading probably to their classification in fairly definite types and a clear understanding of the special requirements of each type, together with the evolution of practical educational processes particularly adapted to those several requirements. Surely we could not ask for a more clearly defined subject-matter than this as the basis of a very respectable science. Many sciences of the present day, it may be said in passing, have by no means so clear-cut a field, and are constantly being embarrassed with difficulties regarding the proper limitations of their own territory, as witness the troubles of sociologists, for instance. So we have an advantage of considerable importance at the very start.

Having found, however, what our subject-matter comprises, the next question that will naturally occur to every student is this, "What materials are at hand out of which to begin the construction of a science?" Upon considering this vital point we find ourselves very well off.

There are now in existence a large number of works, records, documents, etc., of historical value, bearing upon the progress of deaf-mute education in the past. In the British Museum, in Gallaudet College, in the Groningen Institution, in the Volta Bureau, and other scattered places there are ample resources for a scientific study of our work in its historical aspects. No science can be complete that lacks an historical background, into which the roots of that which exists in glorious fruitage to-day may be traced back to their earliest humble origin.

Then we have a rapidly accumulating mass of statistics, in whose dry columns lie imbedded many valuable and significant truths, like diamonds in the ore. These statistics are not confined to a few localities, but are being gathered throughout the world. They deal no longer with hundreds only, or even thousands, but with tens of thousands.

We have also a rapidly growing body of professional literature, in which innumerable facts are recorded, needing only to be collaborated and systematized to bring out many generalizations of great importance.

In fact, this work of educating the deaf, although in a scattered and struggling condition only a century ago, has now gathered sufficient mass and momentum during these last years of the nineteenth century to furnish an adequate foundation for the beginnings of a science. The next century, in whose swiftly unfolding volume so much will be revealed to human ken not dreamed of in our philosophy, will probably see this special science, along with scores of others, brought to a high state of perfec-

tion. Our raw material for future scientific analysis and arrangement is rapidly accumulating. Scores of schools are busily at work educating thousands of deaf children, in many lands, under many governments. Thus a rich experience is being wrought up, and its results are being recorded in hundreds of documents. Verily, we can no longer set up as an excuse for shortcomings that we lack materials. We have them in abundance, with more appearing every year. Let us get to work, then, that we may soon point with honest pride to a Science of Deaf-Mute Education.

But now arises the question, What lies immediately before us to do toward this end? And on the threshold of the reply to this we meet the question, What is really the first stage in the development of any science? The first stage consists simply in gathering through the medium of many workers in many lands as large a mass of well-authenticated facts as possible, more or less systematized under principal headings; *e. g.*, in our case, facts relative to the causes of deafness, the different types of deafness, the psychological characteristics of each type, the *subsequent value of given educational methods when tested in real life*, etc. We must, therefore, address ourselves to this work of collecting systematically and recording accurately such facts, striving all the while to divest ourselves of all bias and prepossession, that we may neither suppress nor exaggerate any data to accord with preconceived theories, but simply present them as discovered in loyal fidelity to the scientific method.

To the end that we may set about this great work with that economy of time and energy born of intelligent co-operation and systematic effort, it will be for our conventions and conferences, where we act together as complex units, to devise the machinery by which simultaneous and specialized work may be accomplished all along the line. The coming summer will see a great meeting of the most

successful educators of the deaf in the world. It will be a great opportunity for some important steps to be effected in this direction. There is every reason to believe that the opportunity will not be neglected.

Meanwhile, as this collecting of data goes on far and wide, it will be for individual students, urged by that spirit of thirst for truth which has inspired the great scientific pioneers of our age, to take hold of the amassed facts, work them over with infinite patience and industry, seize upon the right generalizations, define the lines of classification, develop the true processes of education for these silent children of the world, and thus body forth out of the amorphous whole the form and substance of a real science.

Is this but an air-castle? It is generally very unsafe for us mortals to predict regarding human affairs, yet the present writer will venture here the prediction that another generation shall not entirely pass away without seeing the work, above roughly sketched, almost carried out. There are many present signs that give foothold for this hope. There are many evidences indicating the development of a conscious movement in our profession toward adopting widely harmonized and systematic efforts for the elevation of our work to that plane of unassailable generalization and definitely co-ordinated knowledge that will entitle it to be called a science.

The renewed organization of the Convention of American Instructors of the Deaf three years ago, with its several special departments for the promotion of accurate knowledge in specific directions; the warm enthusiasm generated in the hearts of several hundreds present for further progress toward a higher plane; the growing evidences of original investigation by members of that Convention since; and, across the Atlantic, the recent reorganization of teachers of the deaf in Great Britain, with a successful Conference at Glasgow; the appeal made to this assembly

byone of the ablest members of the British profession, Mr. W. H. Addison, for a systematic effort to be made toward the collection of information and statistics regarding the deaf—all these things are straws, and large ones, that show us unmistakably the direction of the current.

It is time for our work to emerge from the long period of confusing controversy, fed by *a priori* assumptions and barren Aristotelian logic as in the days of the schoolmen, mere fruitless straw-threshing and endless repetition of what has already been said, and to gain the height of scientific consistency and sureness of movement in all departments, resting upon indisputable fact, broadly founded generalization, and thoroughly correlated processes of education. The very thought of such a goal, rising before the mind's eye like some distant impressive outline of a noble edifice, is enough to touch the heart with that divine afflatus which fills the human spirit with an indomitable resolution to win, and is never quenched by difficulty, discouragement, or weariness of the flesh.

J. A. TILLINGHAST,

Head Master of the Ulster Institution, Belfast, Ireland.

COURSES OF INSTRUCTION IN SEWING AND COOKING IN THE WISCONSIN SCHOOL.

COURSE IN SEWING.

First year.

Position of the pupils while engaged in sewing; the proper use of the thimble finger, first finger, and thumb of the right hand; position of the left hand for holding the work; exercises in the action of taking a stitch and drawing the thread through the material; drill in threading the needle (always given at the beginning of the lesson). The first samplers are railroad canvas; this being crossed with threads running both ways compels

the pupils to count the threads, insuring accuracy of the eye as well as the fingers. The stitches are basting, running back-stitch, over-and-over stitch, chain-stitch, bias stitch, button-hole stitch, and feather-stitch.

The second exercise is on a sampler of coarse scrim. The same stitches are repeated as in the first exercise, the scrim being finer than the railroad canvas. It is worked with crochet-cotton, in colors.

Third exercise. Railroad canvas with colored Saxony yarn, single-thread darning, double-thread darning, bias darning and weaving, buttonholing, and cross-stitch embroidery.

Fourth exercise. Muslin or India linen, cut into strips, and the first seam basted, second seam running, third seam over and over, fourth seam felling, fifth seam French seam, sixth seam bias felling, seventh seam hemming and open feather-stitch, one end hemmed, one end hemstitched.

Seventh exercise. Gathering, stroking gathers, and sewing into band, button-holes, and sewing on buttons. Gathering and sewing into band, gathering with a heading without a band, invisible patching, matching stripes, dress and stocking darning, darning with ravelings of dress goods, darning laces and table-cloths.

Second year.

Muslin garment-making, both plain and fancy. Each pupil makes one or two of all the garments worn by either sex. The garments are of miniature size but are made as full-sized garments should be.

Third year.

Artistic decorative needle-work ; embroidery in white and colors, with cotton and silk, on linen ; blending of colors and shading of flowers and foliage.

Fourth year.

Dress making, cutting, fitting, and drafting ; cutting by paterus and dressmaker's model.

In all grades particular attention is given to the position of the pupil while sewing, accuracy in the use of rule and tape measure, names of materials and articles in use, and of garments being made ; also the proper size of needles and thread for different fabrics. A pupil's sample work or garment is not accepted unless reasonably well executed. An exercise is often repeated three or four times.

COURSE IN COOKING.

First year; Plain Cooking.

Lesson 1. Housekeeper's rules, building the fire, regulating the dampers, blacking the stove, lighting the fire, emptying ashes, care of zinc, filling tea-kettle, collecting soiled dishes from the table and taking them to the sink, dusting the room ; care of silver, glassware, bread and meat boards, tins, and dish towels.

Lesson 2. Receipts for baking potatoes, croutons, and bread crumbs. Abbreviations.

Lesson 3. Food, how it builds up the body and keeps it warm ; classification of foods ; measuring, table of measures and weights ; receipts for baked apples, baked crackers, and baked crackers with cheese ; questions on former lesson.

Lesson 4. Boiling or cooking in water ; experiment with starch ; potatoes ; general rules for cooking vegetables ; time-table for boiling ; receipts for boiling potatoes, rice potatoes, mashed potatoes, potato cakes, and boiled eggs ; questions.

Lesson 5. Steaming and other forms of cooking in boiling water ; milk ; the combination of foods ; receipts for oatmeal mush, steamed rice, soft custard, poached eggs, steamed apples, and steamed potatoes ; questions.

Lesson 6. First lesson in meat ; boiled meat ; boiled mutton ; gravy ; smothered beef ; clarified fat or drippings ; questions.

Lesson 7. Warming over ; gravies ; sauces ; thickening ; macaroni ; receipts for minced meat, meat on toast, hash, tomato sauce, and white sauce ; questions.

Lesson 8. Soups ; general rules for stocks ; receipts for soup stock, macaroni, mixed vegetable soup, rice, potato, and bean soup ; questions.

Lesson 9. Broiling ; pan broiling ; time-table for broiling ; broiling steak and mutton chop ; questions.

Lesson 10. Suet pudding ; ginger and fruit suet puddings and lemon sauce ; to chop suet ; to clean currants ; to stone raisins.

Lesson 11. Stews ; receipts for beef stew, dumplings, biscuit, baked apple sauce, and stewed prunes.

Lesson 12. First lesson in batters ; stirring and beating ; receipts for griddle cakes, whole wheat or Graham gems, pop-overs, and snow pancakes ; questions.

Lesson 13. Thicker batters ; muffins and doughnuts ; rolling ; frying ; general directions for mixing ; receipts for corn cake, ginger bread, soft molasses cookies, and doughnuts.

Lesson 14. Bread ; yeast ; the heat for baking ; time-table for baking ; receipts for yeast and bread ; questions.

Lesson 15. Care of food ; receipts for pastry, apple and rhubarb pies, pies with no upper crust, pies with two crusts, plain mince pie, and cream potatoes.

Lesson 16. The adaptation of food to age, occupation, and climate ; the cheapest foods ; peas and beans ; receipts for split-pea soup, Scotch broth, steamed brown bread, scalded corn cake, and fried corn-meal mush ; questions.

Lesson 17. Preparing poultry for cooking ; receipts for chicken fricassee, veal fricassee, cranberries, cole-slaw, scalloped apple, and cream rice pudding.

HEARING DEAF-MUTES.—I.

A CONTRIBUTION TOWARD THE ELUCIDATION OF THE QUESTION OF METHODS.*

Every fallacy has three stages;—

In the first it finds its birth,

In the second none will give it worth,

In the third it masters all the sages.

—Grillparzer.

I.

ABOUT the middle of this century a Swiss named Guggenbühl came forward with the astounding announcement that he had invented a method of instruction and education which would make it mere child's play to banish idiocy permanently from this mundane sphere. The demeanor of the man was so full of confidence, his unctuous appeals to benevolent humanity so irresistible, that even the most stony-hearted could not but assist this seeming philanthropist in his noble project of establishing an institution for idiotic children on Mt. Abendberg, near Interlaken.

The institution was established, and through many years was the recipient of profuse sums of money, without its ever occurring to anybody to obtain more immediate information of its work and methods, hidden away as it was in its sequestered nook. But sinister and persistent rumors at last compelled the authorities to examine into the conduct of the institution, and then it was discovered that the inmates were in a scandalous condition of neglect, and that, far from being a place of cure, it was rather a breed-

* Translated from the German by GEORGE W. VEDITZ, M. A., Instructor in the Colorado School, Colorado Springs, Colorado. The original is published by the author at Breslau, Silesia, Germany (1897, 8vo, pp. 49), and is "dedicated with grateful esteem to Dr. E. M. Gallaudet, champion and promoter of the cause of deaf-mute education" in America.

ing-place for imbecility. The pious Guggenbühl, of course, soon found his occupation gone, but he bore the odium of his exit with dignity, for had he not managed to fill his pockets?

Have we to deal in this case with a shrewd scoundrel, or with an unbalanced enthusiast, deluded into the belief that he could really work miracles? I will leave the question unanswered, as the phenomenon is one, unfortunately, not of isolated occurrence. Whoever studies the literature of the education of special classes will repeatedly meet this Guggenbühl as a typical figure of persons whose pretensions are as exaggerated as their demands are immoderate, and who, moreover, in addition to a touching self-abnegation which they exhibit on all occasions, know how to make the impression that their eye can pierce far beyond the bounds of human ken. The genuine Guggenbühl, who dedicates his services to God and suffering humanity, knows and can do everything. He poaches on the manor of the physician, the surgeon, and the alienist; he cures all the ills that flesh and soul are heir to; blindness, deafness, and imbecility cannot daunt him; broken bones badly set, curvature of the spine, stuttering, stammering, lispings, and other forms of defective speech are but trifles to his omnipotence; eye-water and optic-salve, ear-oil, ear-drums, and trumpets of all kinds; rheumatic rings, electric baths, galvanism, magnetism, hypnotism, microphonophotography, and other things concerning which the many-headed multitude has the most vague conceptions, are made his obsequious servants. At the same time the results are always magnificently successful. Even in complicated cases of long standing a cure is guaranteed.

Just now, however, I have come across a slight case of failure. The *Organ der Taubstummen-Anstalten* (1897) chronicles that at the instance of an importunate mother the superintendent of the deaf-mute school at Wilhelms-

dorf, Württemberg, undertook a journey with a number of deaf-mutes to Vialas, in southern France, to meet "a peasant who healed by means of prayer," but, the *Organ* concludes, "without any appreciable results." Where medical skill is vain, where despairing man hopes against hope, we find Guggenbühl shouting his wares; where the necessity is greatest, there, too, Guggenbühl is nearest.

In the domain of deaf-mute education a certain leaning toward Guggenbühlism has at all times manifested itself, and this sinister phenomenon finds its explanation in the fact that the work of a deaf-mute teacher is controlled with difficulty. This condition is even now, moreover, fostered by the lack of expert superintendence.

Seneca's contemptuous assertion that human nature is not only liable to err, but loves to be deceived, is nowhere more forcibly verified than in our own profession. The history of deaf-mute education is a continuous struggle not only of new truths against old fallacies, but also of new fallacies against old truths. From time to time some addled head is possessed with the notion of bucking against an old established fact as a prejudice, and he must manage very awkwardly if he does not find from the start devout believers. The more preposterous and hare-brained the doctrine, the more alluring it is to all those who have forever renounced independent investigation: "I credit it because it is so incredible."

Among these fallacies I count the claim that has lately caused such "a well-justified sensation," that it is possible partially to restore hearing to the deaf by means of systematic auricular exercises, and thus to enable them in a certain measure to understand speech through the ear. But at the same time I must disclaim beforehand that I mean to accuse the exponents of *this* doctrine of wilful deception. For we have here actually to deal with real phenomena which deserve the most careful consideration, but which in my opinion have as yet found no

satisfactory explanation. I beg leave to give briefly the following in reference to the history of this subject.

Before the real relation of deafness and dumbness was understood the surgeon's scalpel was frequently called upon to alleviate the infirmity of the deaf-mute. But after the fact gained recognition that loss of speech was a natural and necessary result of deafness, discerning men were soon found who probed to the root of the trouble and endeavored to bring help and salvation to the deaf by medical and acoustic experiments upon the defective auditory organs.

Thus the learned and far-sighted Spaniard Bonet says in his "*Method of Teaching Deaf-Mutes to Speak*," published in 1620: "Efforts have been made to remedy the defect of deafness in the dumb by taking them into the open field or into vales, where the voice has a greater volume, and forcing them to scream so loud that at times the blood would flow from their mouths. They were also squeezed into barrels, where the voice must strongly reverberate, in order to awaken their latent hearing. But all these violent measures were unavailing."

The French aurist, Itard, who at the beginning of this century did so much good at the National Institution at Paris, starting with the fact that the ear of many deaf-mutes was not altogether insensible to sound, believed that in many cases it was possible so to improve such latent and defective hearing as to enable the acquisition of speech through the natural channel.

Though Itard's results were far from satisfactory, the methods he employed soon aroused the attention of German teachers. As early as the 16th of April, 1830, there was a conference at Vienna of several government councillors and high medical authorities with Mr. Venus, superintendent and head teacher of the Imperial Institution, at which it was decided to submit Itard's methods to a practical test, and to ask the authorities for permis-

sion and also for the necessary funds. The Austrian school authorities sanctioned the proposition, and also requested the commission appointed to supervise the experiments to submit a detailed report of whatever results might be achieved. Mr. Fink, the present superintendent of the Institution, has been so kind as to let me examine the minutes of these preliminary transactions, but up to the autumn of 1895 no memoranda of the results of the experiments have been found in the records of the Institution.

Similar experiments were made in 1835 by a Hamburg physician, Dr. Bairiès, with fourteen pupils of the Royal Institution at Berlin, but the consensus of expert opinion was that "in not a single case had the hearing of any of the persons treated improved," though it was acknowledged that "several of those ostensibly cured had learned to utilize better than formerly the hearing they already possessed, mainly because their attention had been concentrated on the impressions made on their hearing, and also because they had been drilled in distinguishing these impressions."*

At the same time—that is, about fifty years ago—the well-known aurist, Dr. Linke, also seized upon Itard's suggestions. This savant, not unreasonably, reproaches deaf-mute teachers with being too prone to place the main importance on exercises in articulation, whereas, he says, the acquisition of the correct articulation of a sound ought to be immediately followed by teaching the comprehension of the same sound through the ear. "Why is it," he asks, "that the oral method has so far not had greater results? Because of the complete neglect of auricular training. Even if we only desired to lighten the task of instruction, more attention should be paid to the development of the hearing than has hitherto been the case."

* Walther, "The Royal Institution at Berlin," p. 48.

About twenty-seven years ago, when Mr. Lehfeld opened a private school at Vienna, he promised, in his prospectus of instruction, to develop by means of daily drill whatever hearing his pupils might possess, and, as instruction progressed, to accustom them more and more to the sound of the voice, until at last they might be able to understand speech entirely through the ear. Unfortunately, no account exists as to the measure of success achieved by Mr. Lehfeld, or whether he was able to redeem his promise.

In recent decades these auricular experiments had fallen into a sort of disrepute, as leading teachers of the deaf inclined to the opinion that they did more harm than good. In fact, the fear was expressed that the scanty remnant of hearing that might be possessed would be wholly destroyed by the violent stimulus to which it would be subjected.

Lately this phase of deaf-mute education has again come into prominence, and simultaneously in both the Old World and the New. In America they have not only an oral method, a manual method, a manual-alphabet method, a combined system, etc., but also an auricular method. In native and foreign scientific papers we find reports of exhibitions and public conventions at which these latest marvels have been exhibited to the gaping public—that is, deaf-mutes who can hear and speak, and are therefore neither deaf nor dumb.

In German-speaking countries the initial movement was again at Vienna, and not only at the Imperial Institution, but also at the Institution at Döbling, near the capital. In his latest writings, Mr. Lehfeld, superintendent of the Döbling Institution, claims that he can restore hearing to the deaf in the same limited degree that he can restore their speech. The main purpose of his acoustic exercises, he says, is to bring the pupils to a perception of their own voices, and thus to a greater purity and ease of speech.

He claims that his method enables them "to comprehend speech as a whole through the ear in the same measure as they read it from the lips with the eye. * * * Their hearing becomes accustomed by degrees to the spoken language, so that they learn to understand what is said in the dark, where lip-reading would be impossible, the process finally culminating with their partial introduction to an entirely new world—the domain of sound."

According to Mr. Lehfeld, systematic auricular exercises were begun at Döbling in September, 1893. The results of these exercises were exhibited during the convention of German scientific and medical men held in Vienna, September 23-29, 1894, in the section devoted to diseases of the ear. In the report of this exhibition we find the following: "The chairman, Professor Dr. Rohrer, expresses his warmest appreciation to the lecturer and demonstrator, Professor Urbantschitsch, and thanks those praiseworthy men who have elevated the deaf-mute schools of Austria to such a high plane, and who labor hand in hand with the representatives of otological science for the welfare of these unfortunate patients, who have so great a claim on our fostering care. We are happy to have learned *a new method*, which will benefit just those patients who are least amenable to treatment."

The daily and scientific press soon published the queerest reports concerning these exhibitions, which were repeated at the "monthly meetings of the Royal Imperial Association of Physicians of Vienna." For instance, a Vienna daily published an article under the caption, "Complete Cure of the Deaf and Dumb," in which the "magnificent" results of these auricular exercises received as grandiloquent a description. Professor Dr. Lustkandl, expert of the committee on educational matters of the Chamber of Deputies, took part in one of these demonstrations before the above-named association, December 1, 1893—that is, after the exercises at the Döbling School

had been practised only three months. Later, Dr. Lustkandl reported at a session of the committee the observations he had made, with the result that the then Lord Marshal of the realm, Baron Von Gudenus, felt compelled to express his appreciation to the superintendent and teachers of the Government Deaf-Mute Institution at Döbling. On the 1st of February, 1895, the same subject was brought up for discussion in the Lower Austrian Assembly by Deputy Dumba, and the Assembly forthwith sent an appreciative message to those publications which had signalized themselves in the service of the new method. The Assembly was also authorized "to further this system, so beneficent to the wards of the nation, in every way possible."

As we can see from the above, the exponents of the auricular exercises at Vienna have had no dearth of encouragement, and it was but natural, in view of the alleged successful results, that the teachers of the deaf in other countries felt compelled to make similar experiments. As a matter of fact, these auricular exercises have been extensively applied, during the last few years, in many German and foreign schools. The reports submitted are, however, unfortunately of a nature to awaken, both among the authorities and the public, unwarranted hopes and expectations.

Perhaps the most accurate observations on this subject are those made at the Third Convention of German Deaf-Mute Teachers at Augsburg, by Mr. Hemmes, Superintendent of the Institution at Bensheim. Among other things, Mr. Hemmes said: "About 25 per cent. of the deaf possess some hearing on entering school. With these, pains should be taken during the whole course of instruction to perfect (?) the remnant of hearing, and to have the pupils use it in the acquisition of speech." But Mr. Hemmes indulges in extravagant expectations when he thinks the method will be so efficient that hereafter "there

will be no totally deaf pupils in our institutions." The same may be said of Actual High Privy Councillor Dr. Schneider, who at the Conference of Superintendents of the Deaf-Mute Institutions of Saxony held February 11 and 12, 1897, desired the auricular exercises to be universally adopted, on account of their practical value, enumerating among their benefits "hearing one's own voice, the retention of remnants of speech, intercourse in the dark, and hearing noises in crowded streets."

Dr. Urbantschitsch, aurist and university professor at Vienna, has taken a leading part in the whole movement, having succeeded in securing the school at Döbling as a field for his experiments. But, not fully undeceived by the teachers of this school concerning certain features, he has nourished hopes and expressed opinions that every expert teacher of the deaf must, after careful study, find to be at least questionable.

When Dr. Urbantschitsch and his disciples speak of an "awakening, strengthening, reinforcing, reviving, development, and improvement of the hearing," they appear to think that their acoustic appliances will produce anatomical and physiological changes in the auditory organs, and that the hearing is developed in the same manner as systematic exercise develops the muscles of the body to greater efficiency. Without referring to the circumstance that even experts are undecided in their diagnosis of the pathological condition of the auditory organs, I believe it is questionable whether the susceptibility of a *weakened and defective* sense-organ can be increased in the same manner as the efficiency of a *healthy* limb hitherto more or less unused. If this possibility existed, we should endeavor, through suitable exercise, to remove not only defects in the ear, but also in the remaining sense-organs. Thus, I do not believe it impossible that a person who thinks he can no longer smell may yet be able to distinguish strong and pronounced odors; but I venture to

doubt whether his weakened olfactories can be so far reinforced by exercise as to enable him to distinguish the perfume of a rose from that of a pink. One who is almost blind may still possess a slight perception of intense light or even a very limited capacity of distinguishing objects, but we never hear of such defective vision being improved as the result of persistent exercise.

The results of this auricular drill might lead one to speak of *apparent* successes, but these are difficult to explain, and easily lead to erroneous conclusions, inasmuch as—

1. Defective hearing is manifested in an extraordinary variety of forms ;

2. A comparatively slight degree of hardness of hearing in children prior to the period of speech-acquisition may result in dumbness ;

3. These persons are of so immature a development, mental and linguistic, that they are *themselves* unable to give a reliable account of any possible betterment or aggravation of their infirmity ;

4. The influence of systematic articulation and language instruction upon the power of hearing which these children possess is often so striking that frequently the auricular drill receives credit for what is really a result of the drill in articulation and language.

Further elucidations are here necessary to explain the fallacy in which the adherents of the auricular exercises are entangled, and at the same time to come to a general understanding of the subject.

The belief is almost universal not only among the public, but also in scientific circles, that the pupils of our institutions are absolutely deaf, and consequently dumb. This belief is wholly erroneous. The infirmities of our pupils are so varied, and appear in such manifold forms, that we should have to make a highly complicated classification, should we attempt to distinguish more particu-

larly all the conditions and degrees of deafness and dumbness which we have occasion to study in our pupils. The following classification will be sufficient for our purpose:

1. According to my estimate, about 50 per cent. of our pupils may be regarded as totally deaf, and no amount of skill can lead them to any conception of sound. If, now, Professor Urbantschitsch and his adherents assert that energetic acoustic drill may enable a majority of *these* deaf-mutes to distinguish at least the vowel sounds, these gentlemen are suffering under the same delusion as those teachers of the blind who, not so very long ago, believed in the fallacy that the blind could be taught to distinguish the color of certain substances through the medium of touch. Deaf-mutes of a susceptible temperament may be able, after long practice and strenuous effort, to distinguish certain vowels, when vigorously pronounced, by the difference of the vibrations produced in their bodies, or, through an ear-trumpet, in their ears and the bones of the head. These deaf-mutes do not grasp the vowels through the ear, but distinguish them, with more or less accuracy, through their trained sensory nerves.

2. Next to the totally deaf, we find pupils in our schools—their number may comprise from 20 to 25 per cent.—who respond to the very loudest sounds and noises, such as the noise of the steam-whistle, the thunder of cannon, the sound of a great bell rung near them, etc. The hearing of these pupils is, however, so feeble that vocal sounds, even when ejaculated in a stentorian voice, fail to produce any impression. This glimmering degree of hearing may be regarded as having no influence at all upon the vocal development of these pupils, and sensible teachers have already abandoned all efforts to help such children aurally.

3. Finally, we find in our schools pupils—and they make up the remaining 25 to 30 per cent.—who really possess some hearing, who can, for instance, hear the barking of dogs, the crowing of cocks, the neighing of

horses, the ringing of the dinner-bell, and other noises, and who have remained dumb only because their hearing was impaired before the period of speech-acquisition, their friends neglecting to give proper attention to their trouble. It is just these so-called deaf-mutes, whose partial hearing is, moreover, manifested in the most varied degree, who may be regarded as the cause of the present movement. And, really, during the course of instruction phenomena were observed in these pupils, which, while they have not found a satisfactory explanation, are nevertheless, in my opinion, given an erroneous significance by the adherents of auricular exercises.

The elements of our speech, from the resonant *a* to the almost inaudible aspirate *h*, form a scale of tones and sounds of the most diverse intensity. Meagre fragments only of our speech forced their way to the ear of the partially deaf child, namely, the vowels in irregular recurrence and varying volume, while in the case of those whose deafness was more pronounced the consonants rolled by without leaving any impression at all. The child noticed, of course, that the rest of the family communicated by word of mouth, but was unable to straighten the chaotic tangle of sounds that beat upon its ear, and was in the same predicament as a person of normal hearing who, unfavorably placed, listens to some speaker and, while hearing his voice, does not understand a word.

In order to learn speech in the natural manner, there is requisite, among other things, normal hearing—the ability not only to distinguish the vowels, but also to grasp the consonants. As this condition was lacking with the little ones in question, they necessarily remained dumb. This class of pupils must acquire speech in the same manner as other deaf-mutes. It is evident, however, that they possess a great advantage over the totally deaf, for they quickly grasp the purpose of the mechanical articulation exercises, and very soon fathom the secret that *sounds* serve as a

medium of thought. While learning the pronunciation of the individual sounds, these children not only study the movements and positions of the lips and vocal organs, but when the respective vowels occur *isolated* and with the necessary *volume* and *clearness*, the ear, as well as the eye, is simultaneously called into service. The ear is able to distinguish *vocal differentiations* in these loud and isolated sounds, which it was unable to do in the *connected form of ordinary speech*. If, now, these children are provided with a duplex ear-trumpet so that they can compare the voice of the teacher with their own, the acquisition of speech will be materially accelerated. In the same manner as a normal child, after the regular dissection and examination of some plant, sees more *with the same eyes* in every subsequent plant than before the first lesson, so the partially deaf child, after he has acquired some perception of the sonorous elements of speech, apparently hears more, *though with the same degree of hearing*, than before. After these children come thus suddenly to a mental quickening, and to the knowledge that the hearing they possess may yet be of service, the soul rushes to both eye and ear, and they use both senses in almost equal degree in the acquisition of the new treasure.

During the entire school course, these pupils have a decided advantage over their totally deaf school-mates. They give the articulation teacher little trouble, and in the succeeding grades they are conspicuous for their distinct and fluent speech, their accurate comprehension of questions, and, outside the class-room, their persistent and copious use of articulation. These children, even when of only medium capacity, frequently outstrip the most intelligent among the real deaf-mutes, and, where they are not feeble-minded, nearly always reach the highest grades. They cause a great sensation at public exhibitions by their distinct and easily understood articulation, and on every occasion know how to win the favor of all those who are

not sufficiently acquainted with the great variety of phases in which the infirmity of the deaf is manifested. Deaf-mutes of this class, who on entering school are barely able to distinguish one or two vowels, apparently learn how to hear during their artificial acquisition of speech. Some of them, with progressive instruction, get so far as to seize, *through the ear alone*, words, sentences, and even statements of some length. Had these persons had their hearing impaired in the same degree *after* the period of speech-acquisition, they would probably not have been put in a deaf-mute school at all, and therefore Tröltzsch, in his treatise on Diseases of the Ear, says very pertinently: "The same affection of the ear which makes an adult hard-of-hearing produces dumbness in a child."

All the observations and investigations I have made have convinced me that the aural improvement in those of our pupils who possess a minimum of hearing is only *apparent*. After the infirmity has been once established, and nature does not come to the rescue, the mechanical aural capacity nearly always remains the same. The degree of hearing is unchanged, but the pupil, as mental development advances and his powers of combination are increased, learns how to put his originally inert hearing to better and better use.

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[TO BE CONTINUED.]

A NEW DEVICE IN TEACHING LANGUAGE.—II.*

Explanations.

(WHO), (what), (how), etc., are “inciters;” the dash [—] stands for noun, pronoun, or verb, as the case may be; words inserted in brackets are explanatory or suggestive, as: The lady teachers who live (where) take (what) [at noon] (where) = The lady teachers who live down town take dinner at the school.

A (who) runs = A boy runs.†
or A girl runs.
ran. A man runs. Etc.

QUESTION: Who runs?

Plural.

(who) run = Boys run.
or Girls run.
ran. Men run. Etc.

QUESTION: Who run?

A (what) runs = A dog runs.
or A horse runs.
ran. A cow runs. Etc.

QUESTION: What runs?

Plural.

(what) run = Dogs run.
or Cows run.
ran. Etc.

QUESTION: What run?

A (who) eats (what). = A girl eats bread.
or A boy eats an apple.
ate.

QUESTION: Who eats an apple?

* Continued from the February number of the *Annals*, page 87.

† While parts of the method are printed for convenience thus: “A (who) runs. = A boy runs. Etc.,” in actual practice, particularly with beginners or primary pupils, the device should always be used in this way:

A (who) runs.
A boy runs.
A girl runs. Etc.

Plural.

(who) eat (what). = Boys eat cake.
or Girls eat pie.
ate. Etc.

QUESTION: Who eat cake?

A (what) eats (what).

A dog eats meat. Etc.

QUESTION: What eats meat?

Plural.

(what) eat (what).

Dogs eat meat.

Horses eat oats. Etc.

QUESTION: What eat meat?

A (who) (does what).

A boy runs.

A girl eats bread.

A baby drinks milk. Etc.

QUESTION: What does a boy do?

Plural.

(who) (do what).

Boys play ball.

Girls sew. Etc.

QUESTION: What do girls do?

A (what) (does what).

A dog barks.

A horse kicks.

A cow gives milk. Etc.

QUESTION: What does a horse do?

Plural.

(what) (do what).

Cows eat grass. Etc.

QUESTION: What do cows do?

It will perhaps now be easy enough to begin with names.

(who) put (what) on the (what).

Let a boy put a book on the table, having given his name beforehand.

John put a book on the table. Etc.

(who) broke a (what).

Henry broke a pencil. Etc.

(who) played with a (what).

Joseph played with a dog. Etc.

The (what) on (what) belongs to (whom).

The book on the table belongs to James. Etc.

These are only examples of how the device may be used in many ways in this line.

(who) went to town (when).

Mr. Gray went to town yesterday.

Or, to change the order :

(when) (who) went to town.

(when) (who) will go (where).

To-morrow Mr. Hagerty will go to Chicago.

(who) gave a (what) to (whom).

Mr. Gregory gave an apple to a boy.

Mr. Cochrane gave a slate-pencil to James. Etc.

(who) are (doing what).

The boys are playing base-ball.

The pupils are eating dinner. Etc.

*Adjectives.**

The sky is (how) = The sky is blue.

The wall is (how) = The wall is white.

The grass is (how) = The grass is green.

Chalk is (how) = The chalk is white.

John is (how) = John is tall.

QUESTION : How is John? How is chalk?

For a great variety of practice :

(who) is (how).

James is fat. Etc.

(what) is (how).

or

(who) are (how).

(what) are (how).

Again :

(who) — (how).

(what) — (how).

James gave a (how) knife to (whom) = James gave a sharp knife to Henry. Henry is a (how) = Henry is a tall (boy). John has (how) eyes = John has blue eyes.

(who) has a (how) (what) = James has a new slate. Henry has a nice book. Etc.

(who) have (how) (what) = The pupils have good health. Etc.

(what) has, or have (how) (what) = A camel has a long neck. Elephants have short legs. Etc.

QUESTION : How was the knife John gave to James? What did John give to James? How are the eyes John has?

* "Adjectives tell us *how* things are."—*Graebner*.

As children's ideas of things are very indefinite, the above exercises will afford almost limitless practice. We now begin to cultivate definiteness.

The sky is (what color) = The sky is blue.

John is (how many) years old = John is ten years old.

Henry is a (what sort of) boy = Henry is a good boy.

John paid (how much) for the ball = John paid twenty-five cents for the ball.

The well is (how) deep = The well is very deep.

QUESTION: What color is the sky? How many years old is John?
Etc.

It is (how) but (how) to-day = It is clear but cold to-day.

It is (how) to go (where).

It is nice to go to Europe. Etc.

James went (where) (when) and bought (what).

James went to town yesterday and bought a new hat. Etc.

Pronouns, etc.

As I am without experience in the teaching of pupils of so low grade as this, I must ask allowance from teachers, particularly in illustrating the use of *I* and *you*.

I see a (whom).

I see a boy.

I see a girl. Etc.

I see a (what).

I see a slate.

I see a picture. Etc.

We eat (what).

We eat bread. Etc.

Who sees a boy? or, Whom do I see?

Who eat bread? or, What do we eat?

You saw (whom).

The pupil will be very likely to use *you* in his answer, so the teacher will have to be careful to tell him to use the pronoun *I* of the first person.

hehim

John studies well.

— is a (how) boy.

We like —.

After a little effort, it will not be long before some one in the class will fill these blanks, and by frequent practice at such work the pronouns will soon be mastered.

The pronouns *I, she, they, it, etc.*, are to be learned in the same way.

My (what) is in my desk.

My slate is in my desk.

Your (what) is in the barn.

Your horse is in the barn.

Our (what) are on the desks.

Our slates are on the desks.

John's (what) is in Milwaukee.

John's home is in Milwaukee.

Henry's (what) are (what color).

Henry's eyes are brown.

Fred's (who) came to see him (when).

Fred's father came to see him yesterday.

James cut his (what) in the Manual Training school.

He cut his finger in the Manual Training school.

Helen tore her (what).

She tore her dress.

The pupils have written their (what).

The pupils have written their lessons. Etc.

Fred lost — knife.

Helen tore — dress.

— tore her dress.

A book is on the (what).

— is a (how) book.

— is (whose) book.

A book is on the table.

It is a nice book.

It is John's book.

A slate is on my (what).

— is a (how) slate.

— is (whose) slate.

A slate is on my desk.

It is a small slate.

It is my slate.

(whose) (what) is (where).

My home is in Delavan.

Fred Smith's home is in Arcadia, Wis. Etc.

(whose) (who) lives (where).

Mr. Hambright's father lives in Racine. Etc.

This (what) is (where).

Standing near a table, with your finger on some object, call attention to the above sentence. The pupils will soon fill out the sentence :

This book is on the table.
This (what) is (whose).
This book is John's.
This is (whose) (what).
This is Henry's book. Etc.
That (what) is (where).

Standing now at a distance and pointing to some object, do as before.

That clock is on the wall. Etc.
That (what) is (whose).
That is (whose) (what). Etc.
A (what) is a man who makes boots and shoes.
A shoemaker is a man who makes boots and shoes. Or,
A (who) who makes boots and shoes is a (what).
A man who makes boots and shoes is a shoemaker.
A (what) is a (who) who (does what).
A dressmaker is a woman who makes dresses. Etc.
(who), who is or was a (what) where, (did what).
Mr. Hambright, who is a clerk here, went to Milwaukee last Saturday.
James Conrad, who was a student in Gallaudet College two years ago, went to Colorado last summer for his health.
(who), who died (when), lived (where) or was (what).
Gen. Grant, who died in 1885, was an ex-President of the United States.
Gen. Sherman, who died some years ago, lived in New York city.
(who), who (does what), lives (where).
Mr. Hagerty, who teaches school here, lives in town. Etc.
(who), who is the (how) — (where) (did what) (when).
James, who is the largest boy in school, went home yesterday.
Etc.
The (what), which is (where), belongs to (whom).
The book, which is on the table, belongs to Mr. Murphy. Etc.
(what town), which is a (how) —, is (how far) from (what town).
Delavan, which is a fine town, is 18 miles from Whitewater. Etc.
The (what) which is (where) is (whose).
The horse which is in the barn is Mr. Swiler's. Etc.

Of course the above are only partial illustrations of the use of the "*inciter*" in the case of the pronouns, but I think they will do to give the reader a fair idea of the way in which the method may be used in this part of language work.

Adverbs, etc.

James writes (how).

James writes nicely.

(who) walks (how).

Myra walks gracefully.

The pupils went to the Fair in the (what). Or,

The pupils went to the Fair (how).

They went to the Fair in the cars.

For practice in variety :

(who) (does what) (how).

John works well. Etc.

Henry studies hard. Etc.

(who) can play (what).

John can play ball. Etc.

(who) can (do what).

John can write.

Henry can ride a bicycle. Etc.

Practice in the use of *cannot* may be carried on in a similar manner.

Comparison of Adjectives.

(who) is or are (how).

Rosa is fat.

My brothers are tall. Etc.

(what) is or are (how).

Camels are ugly.

Lyon's finger is pretty sore.

(who) is or are (how) than (who).

Louisa is taller than I.

Jolitz is brighter than Ida.

(what) is or are (how) than (what).

The electric lights in the school-room are prettier than those in the study-room.

New York is more beautiful than Chicago.

(who) is the (how) — in the class.

Rosa is the smallest girl in the class. Or,

(who) is the (how) — (where).

Jolitz is the tallest boy in the school.

To encourage more difficult work, I write something like this on the slate :

(who) said, or heard, or read, or told that (who) or (what) is or was the (how) — (where).

Chris. told me that the dictionary was the largest book in the school-room.

Comparison—Adverbs.

(who) writes (how).

James writes nicely. Etc.

To give more variety and training, I put the device this way :

(who) (does what) or (did what) (how).

Supt. Swiler told Kohler that he did well in the shoe-shop.

Mr. — told me he could not read the newspaper very well at night.

(who) (does what) (how) than (who).

The boys study harder than the girls.

(who) (does what) the (how) of (whom).

Parish walks the fastest of all the boys.

Bridget dances the most gracefully of all the girls.

Nearly all the above sentences in comparison of adjectives and adverbs are copied from my pupils' work.

It is (how) to be (how).

It is wrong to be jealous.

It is good to be industrious.

It is bad to be quarrelsome.

It is always proper to be polite. Etc.

(Pupils' work.)

(who) is (where).

Mr. Wachuta is in his room. Etc.

(when) (who) was (where).

Yesterday Miss Pearce was in Chicago. Etc.

It is (how) to be (where).

It is good to be in school.

(who) will go (where) (when).

Mr. Gray will go home this afternoon.

It is or was (how) (when) or (where).

It is cloudy to-day.

It was cold yesterday.

It was cold while I skated on Lake Como last Saturday.

It is a little cold to-day.

I think, if it is pleasant, we may skate on Lake Como next Saturday.

It was very cool in the woods last summer.

(Pupils' work.)

It is (how) to (do what).

It is nice to go home on Christmas.

It is good to read books.

It is fine sport to skate.

It is hard for some to learn.
 It is bad to fight.
 It is wrong to offend your teacher.
 It is wrong to drink.
 It is wrong to lie.

It takes (whom) (how long) to go home in the (what).
 It takes James a day to go home in the cars.
 It takes (whom) (how long) to (do what).
 It takes Mr. Larson 45 minutes to ride to Geneva on his bicycle.
 Etc.

(Pupils' work.)

It has been (how) for (how long).
 It has been cloudy for almost a week.
 It has been cold for almost two weeks.
 (who) has been (how) for (how long).
 John has been sick for three days.
 (who) think it will be (how) (when).
 I think it will be fine in a few days.
 (who) think it will (do what) (when).
 Hallada thinks it will rain next spring. Etc.
 (who) (does what) as (how) as (who).
 James writes as well as Frank.
 (who) can (do what) as (how) as (who).
 John can play ball as well as Henry.
 To-day it is as (how) as (when) = To-day it is as cold as yesterday.

Because.

The boys cannot play (what), because it is (how).
 The boys cannot play ball, because it is wet.
 (who) cannot play (what), (why) it is (how).
 The boys cannot play ball, because it is wet.
 (why) it is (how), (who) cannot (do what).
 Because it is wet, the girls cannot go down town. Etc.
 (when) (who) could not go (where), (why).
 Last week Harvey could not go to school, because he had a boil
 on his cheek.

When.

(when) (what) is out, (who) will (do what).
 When school is out, Mr. Hagerty will take a picture of the new
 pupils.
 When (who) goes (where) (when), — will (do what).
 When Mr. Larson goes to Michigan next summer, he will visit
 his friend. Etc.

If.

(who) said that if (who) were a (how) boy — could go (where)
 (when).

John's father said that if he were a good boy, he could go to the fair in September. Etc.

(who) will buy (what) when — goes (where) (when).

Mr. H. Hambright will buy some presents when he goes to Racine next week.

How.

(who) teaches (whom) how to make (what).

Mr. Beamsley teaches the boys how to make boots and shoes.

Since.

It is (how long) since (who) saw (whom).

It is three months since the pupils saw their parents and friends.

(who) has not seen (whom) since (what year), or (what month) or (what season).

James has not seen his mother since 1893.

Where.

(who) knows where (what) is, or are.

Fred knows where his dog is. Etc.

(who) knows, or know, where (who) lives, or live.

The teachers know where their pupils live. Etc.

(who) told (whom) that — did not know where (who) went (when).

James told Henry that he did not know where his sister went yesterday.

I think the foregoing is sufficient to illustrate the method in this kind of work.

*An Example of the Development of the Different Constructions
of Verbs.*

Name, 8 Constructions.

(who) named (whom).

My parents named me.

(who) named (whom) (what).

Last April my cousin named her little daughter, Ethel. Etc.

(what State) was named in honor of (whom).

Pennsylvania was named in honor of William Penn. Etc.

(who) named (whom) after (whom).

Lincoln's parents named him after his grandfather. Etc.

(who) was named by (whom).

Your son Orville was named by your mother-in-law. Etc.

A (who) named (what) (did what) (when) (where).

A man named Wilson committed suicide last summer at Ashland.

Etc.

(whose) name is (what).

My cousin's name is Hulda Anderson, etc.

A (who) whose name was (what) (did what) (when).

A boy whose name was James Riley ran away from school last January.

The above is only a sample of such work, all the sentences being written by one of my pupils. In this way I taught fourteen verbs last year whose different constructions were from five to twelve.

Here is some use that may be made of the device in geography. The class is supposed to be in the school-room and pupils and objects are made to assist.

(who) is north of (what).

John is north of the table. Etc.

(who) or (what) is — of (what).

The desk is south of the table.

(who) is (in what direction from) (what).

Henry is west of the table.

(who) or (what) is, or are, in (what) part of (what) or (what building).

Our school-room is in the western part of the school building.

Etc.

(what country) is in (what) part of (what continent).

Alaska is in the northeastern part of North America. Etc.

Locating cities and towns:

Chicago is (where) in (what) part of (what State).

Chicago is on Lake Michigan, in the northeastern part of Illinois.

Now put some other city in the place of Chicago, and let the pupils locate it, and so on. I have tried the above, with excellent results.

These remaining pages are the work of the pupils, further illustrating the use of the method. Such work can be made hard or easy, as the teacher desires.

Description of a Picture.

This is a picture of (what). (who) are (doing what) hand in hand. Two (who) have (what) on [their heads]. One has (done what) on (what). (who) with the blue (what) has on (what). (what) is in front of (whom). (who) is sitting on (what) (where) (doing what). (what) are leaning against (what). (who) look (how). (who) on the ground seems to be (doing what) (why).

This is a picture of some children, hens, geese, houses, and oxen.

The children are running hand in hand.

Two girls have hats on.

One has fallen on the ground.
The boy with the blue dress has on a red necktie.
Two geese are in front of the children.
A man is sitting on a log near a fence holding his child.
A cane and a ladder are leaning against the log and the barn.
The children look happy. The boy on the ground seems to be crying because he is hurt.

Reproduction.—James Russell Lowell.

(who) was born (when) (where). — was the (how) of (how many) (whom). (whose) name was (what). And — was (what). (whose) (what) was (where) but he (did what) (where). (whose) home was called (what). There were (what) about (what) when (who) was (how). (who) loved to (do what). (who) had (what). — built (what).

James Russell Lowell was born on February 22, 1819, in Cambridge. He was the youngest of five children. His father's name was Charles Lowell and he was a minister. His home was in Cambridge, but he preached in Boston. His home was called Elmwood. There were large beautiful groves about Elmwood when James was a little boy. He loved to play among the trees with his brother and sister. He had many pets, a colt, dog, and kittens. The children built a hut in the woods.

Christmas.

(what day) was (what). — comes (when). On that (what) (who) was born (how long) ago. So we — (what) in — of his (what). — is a (how) (what) for (whom), (why). (who) had our Christmas (where) this year. (who) was (what). — had on (what). It was (what) to see (whom) (do what). After breakfast (who) (did what). (how many) got (what). Every one got (what). (who) had (what) for (what meals). (when) there was (what) (where). At (what) (who) (did what), going (where) at (what time).

Christmas.

Last Friday was Christmas. Christmas comes on December 25. On that day Jesus Christ was born 1900 years ago. So we observe Christmas in remembrance of his birth. It is a happy day for children, because they get presents. We had our Christmas in the dining-room this year. Mr. Joseph Wachuta was Santa Claus. He had on a sheep-skin coat, fur cap, gray pants, and big shoes. It was fun to see Santa Claus dance, bow and shake hands with the pupils. After breakfast I got my box and opened it. Many pupils got boxes and presents. Every one got a box of candy, a bag of nuts, and a Chinese napkin. We had turkey, mince pie, and cranberry sauce for dinner, and oranges and cakes for supper. In the evening there was a party in the chapel. At the party we played games and danced, going to bed at 9 o'clock.

KINDERGARTEN FOR THE DEAF.

In the early education of hearing children the use of kindergarten has proved to be of great advantage, but whether it is of practical value in the education of the deaf is a question which has presented itself for some time to the mind of the writer.

Wishing, if possible, to solve this question by obtaining information and expert opinion on the subject, I sent out, some time ago, the following list of questions to the superintendents of all the schools for the deaf in this country:

1. Is kindergarten taught in your school?
2. If so, do you place all children who enter the school, regardless of age, in the kindergarten department, or what rule do you follow in this respect?
 - (a) How long, as a general rule, do you allow the children to remain in this department?
3. What is your opinion as to the value of kindergarten for the deaf?

From the majority of these superintendents prompt replies were received, but a few of them neglected to answer my queries. Nine-tenths of the replies received were favorable to the use of kindergarten in schools for the deaf. Several of the older members of our profession, however, appear to be extremely doubtful of its value.

Kindergarten departments have been established at the following schools: Indiana, Maryland, Western New York, New Jersey, Kansas, Iowa, Nebraska, Wisconsin, Northern New York, Maine, New York, Mississippi, Arkansas, Central New York, Minnesota, Pennsylvania, North Carolina, and Illinois. All the other schools, with the exception of some eight or ten, use kindergarten methods and devices.

There seems to be a diversity of opinion as to the age

children should be admitted to the kindergarten department and the length of time they should remain in it. In the Rochester School, where kindergarten has been taught for the last twenty-two years, the rule is to place all children under twelve years, upon entering—with occasional exceptions of such as have had special opportunities for mental development or are physically mature in advance of their years,—in this department, in such of the classes as they are best qualified to enter. They are allowed to remain there until they are twelve years of age. A similar rule prevails at the New Jersey School. At the Wisconsin School all children under ten are placed in this department and allowed to remain there two years. In the Indiana School, where kindergarten has been admirably arranged and systematized, the admission into this department is limited to twenty pupils, from six to eight years of age, each year. These are allowed to remain in this department two years. At the other schools there does not seem to be any fixed rule, but the majority agree that only the youngest children, or those under eight years, should be admitted to this department, and that they should be allowed to remain there about two years.

In reference to the value of kindergarten for the deaf, Mr. Ely, Superintendent of the Maryland School, says :

“A kindergarten for the deaf cannot include all the good points of a kindergarten for the hearing. Music and rhythm, of course, have to be left out. A kindergarten for hearing children is useful in the very early years and before the age at which children are usually admitted to schools for the deaf.

“Our young deaf children in school, while in many ways at a disadvantage compared with young hearing children, are yet in many things as well advanced as those who can hear, and many of the kindergarten occupations are unsuited to them, or, if applicable at all, would require from them little more than passing notice.

"I put a great deal of value upon the kindergarten, but would not allow it to cover too much time."

Mr. Clarke, Superintendent of the Michigan School, says: "I see no reason why deaf children over seven years of age should go into a kindergarten. I should like to get hold of them when younger, and should then have one, but have not arranged it yet."

Dr. Williams, Principal of the Hartford School, says: "A modified form of kindergarten is valuable for very young deaf children."

Mr. Dudley, Superintendent of the Colorado School, writes: "I do not think kindergarten is available for the deaf. Kindergarten, to be real, must consist largely of song and story and there must be a continual fire of conversation going on simultaneously with the work. The deaf can march, and perform some of the gymnastics and do the weaving and clay-moulding, but these are only features—not the thing itself."

Dr. Westervelt, of the Rochester School, says: "We find our kindergarten a valuable part of our school method, as is shown by the number of years which it has been sustained. We use much of the regular kindergarten work, but necessarily omit a good many of the songs and exercises, and especially such as we find not suited to the age and other characteristics of our children. The training of attention by all of the kindergarten devices we have adopted develops children especially dull, as we have not been able to do in any other way, so that we have few children who appear imbecile or unable to use language to a limited degree, and, seeing that whatever they are able to conceive they are to express in English, it seems as if they were making a more satisfactory progress than if they could express the same thought in signs, and those of our children possessed of faculties of growth and training develop whatever powers they possess to excellent advantage. In order, however, that the

kindergarten should be beneficial to the deaf, it should be conducted through language by manual spelling to the absolute disuse of signs by both teachers and children, either in school or out. Language can then be used to them, substantially, as in kindergartens for the hearing."

Mr. Tate, of the Minnesota School, says: "In a greatly modified form it can be used as a diversion, and has some virtue, no doubt, as a means to development."

Mr. Yates, of the Arkansas School, says: "We think it a good thing, given in connection with the regular class work. Our kindergarten pupils are all in regular classes a short while each day as well as an hour and fifteen minutes in the kindergarten. They progress finely and every little fellow seems to love this work dearly. Our kindergarten teacher will also give lectures to our other primary teachers. This will, we hope, sharpen the ingenuity of these teachers, better enabling them to keep up a healthy, loving interest in their classes, so necessary in the work of instructing the young.

"I fear many of our schools have had too much dryness, sternness, and, frown in our classes of little children. Kindergarten, I hope, will have the happy effect of mellowing matters, without interfering in the least with proper discipline. Kindergarten strives to draw out, to lead the young mind naturally, without cramping or frightening it in any way by using harshness or force, and that this is the proper method of instruction for at least a very large majority of our little ones, all will agree."

Mr. Mathison, of the Ontario School, thinks a kindergarten department would be valuable in every institution for the deaf, and purposes having one when funds can be obtained to pay a teacher.

Miss Taylor, of the Maine School, writes: "With young children whose attention could not otherwise be held five hours a day, it is developing and helpful, but if continued for too long a time, the teacher who takes the

class invariably complains that the pupils are indolent and prefer play to work. In teaching the deaf there is so much that takes the place of kindergarten work that most children after eight years of age do not require it."

"The school is incomplete without it," is the opinion of Mr. Dobyns, of the Mississippi School; and Mr. Nelson, of the Rome School, thinks it "a great thing for the deaf, to give them a foundation for their future practical education."

Mr. Currier, of the New York Institution, writes: "The kindergarten system has become so well understood as a system of education for hearing children that it is somewhat surprising that it is used in so few schools for the deaf. The employment of its methods in the early training of the deaf is looked upon with disfavor by many able instructors, who question the expediency of games and the like, and ask for proof of definite results obtained by the use of these methods. Great principles cannot be stated in a few minutes or understood in a few hours. The kindergarten, by utilizing play, puts it in the right place, and it is the one great reason why schools for the deaf should make it welcome."

Mr. Ray, of the North Carolina School, says: "I regard kindergarten methods in modified form of great advantage to small deaf children. I am not prepared to advocate the 'free, simple, and only kindergarten methods' as best adapted for the use of deaf children, but I am firmly convinced that with the smaller children of our schools for the deaf and blind the general principles in a modified form are practically invaluable when properly exercised."

Mr. Rider, of the Malone School, writes: "The kindergarten department is a department of educational foundations; a place where our little children can receive not only tender care, but the training, guidance, and associations which they need. Kindergarten reveals to the child a world in which he is for the first time brought to realize

that he is one of many, and given companionship with equals. Naturally he has been a separate individual and thoughtful of self alone. Now he is one of a community and must learn in the easiest way that the loving and helping of others is the surest happiness, and through the training he here receives he will in real life be more apt to make every pleasure a delightful task and every task a delightful pleasure."

Mr. Connor, of the Georgia School, says: "I think some of the kindergarten work can be used to very great advantage with the younger children, especially in the oral department, but I should not want the rigid enforcement of a rule that would require that every pupil should be placed in a department specially organized for this work."

In an admirable article in the January number of the *Annals*, Miss May Martin, of Gallaudet College, interestingly describes the kindergarten work of the New Jersey School. She speaks of the value of kindergarten work in the teaching of language, and the habits of industry, activity, alertness, and observation formed by a training in this work. She advocates the theory of making the first few years at school as full as possible of activity and genuine interest for the pupil, encouraging him to investigate and report to us rather than drilling him out of our own mass of information, and thinks that by doing so the best foundation for his future is laid.

From the opinions expressed above and from my own experience and knowledge along this line, I should say that every school for the deaf where children are admitted under eight years should have a kindergarten department. We all know what kindergarten does for the hearing child—how it trains the eye to observe correctly form, color, and proportion; how originality and ingenuity are developed, the imagination cultivated, the perception quickened, and the judgment ripened; how the hand is trained

to work consciously, and a valuable foundation mentally, morally, and physically laid. Now, I do not see why deaf children, through the aid of natural signs, finger-spelling, and speech, cannot reap the same advantage from kindergarten as the hearing. One of the reasons why kindergarten has not come to the front in the education of the deaf is that the trained kindergartners, as a rule, who are placed in charge of the kindergarten departments of our schools, have no knowledge of the nature and requirements of the deaf, and they, therefore, cannot possibly adapt the work to suit the needs of a class of whom they have no knowledge. If trained teachers of the deaf were also trained kindergartners and the kindergarten methods were adapted to suit the requirements of the deaf, then I believe that nothing else could lay such a valuable foundation. The effect of such a training would be felt throughout the entire school course.

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THE PSYCHOLOGICAL METHOD OF TEACHING LANGUAGE.*

THE grand aim of every teacher of the deaf is to put his pupils in possession of the spoken language of their country. Surely, then, another aid toward this end will be welcomed by our profession. It is in this belief that an English edition of the Series or Gouin method of teaching language has been prepared and at last happily completed. Its special aim is to aid the deaf in English-speaking countries and to lighten the labor of their teachers; but it is equally applicable to classes of hearing children in English primary schools and to foreigners who desire to acquire the English language.

* "Scenes of English Life. Book I: Children's Life. Book II: Daily Life, Trades, etc. Book III: The Country, Travelling, etc." London. George Philip & Son, 32 Fleet Street. 1898. Price one shilling each.

A review of the first volume of these lessons, to be found in the organ of the National Union of English Teachers, *The Schoolmaster*, December 25, 1897, remarks, "That the method is effective we can vouch. We have given several of the very interesting exercises to our Fourth Standard, and the way the composition was executed proves that both the selection of the scenes chosen and their clever gradation are suited to the work of the Standards and that they will greatly improve the children's language. The plan of arranging the verbs in the margin as a guide to sequence in writing is one which all teachers of composition may adopt with advantage. The teachers in our infant schools who would have their pupils answer in correct and completed sentences may use this book and will find that much of the hesitancy and awkward shyness so remarkable among English children will be lessened."

Here we have the acknowledgment that children in the possession of the sense of hearing, that avenue through which nature unconsciously imparts the gift of speech, who from infancy have heard conversation going on around them, who have through the ear gathered a large vocabulary and, as we should suppose, an easy application of phrases and colloquial expressions—yet these children still find themselves at a stand-still and the ready description of a series of actions or circumstances a difficult accomplishment. Can we marvel that the deaf, with all their deprivations, find the labors of composition a heavy task? A method that assists the hearing infant scholar will just as surely aid the young deaf student, when carefully adapted to his greater need. This I have proved in my own experience, and my purpose in this paper is briefly to indicate, to a wider circle than I have yet reached, the special advantages of these lessons, though the subject has already been brought before the readers of the *Annals*.*

* *Annals*, xxxviii, 177-189; xli, 417; xliii, 134.

All our best teachers in every country, and numerous papers and sample lessons that have appeared in these pages from time to time, have pointed out that the best method of commencing language is by giving the names of objects around, and actions performed by, the pupils themselves.

This work goes a step farther and would, as it were, stereotype in spoken language the details of every scene of daily life that passes under the conscious observation of the pupils, from the hour of their rising to that of their retiring to rest.

As the young child's attention is occupied chiefly with that which concerns himself, these scenes commence, naturally, with the putting on of clothing, partaking of meals, and engagements in nursery, playground, or school-room.

But, as knowledge increases, interest goes out to a wider circle, and the employments of others claim attention; how the domestic work of the home is conducted—the daily processes of cleaning, cooking, and preparing the table for meals. Wider still grows the inquiry. Whence come the articles of food, the tools and materials handled in these daily occupations? Domestic animals and their part in supplying these come under review. Then the tradespeople who visibly provide the articles in their stores. Beyond these come the processes of agriculture, manufacture, or commerce by which the articles of food and clothing are produced or brought within reach. Visits in vacation open up the vista of places beyond the narrow circle of home or school experience; and methods of travel on land and sea demand expression. All these will be found provided in the work now completed in its three books.

With the growing range of subject grows the need of phraseology in which to express it—not the language of literature, but the every-day colloquial expressions used

by those who hear, and it is precisely to give these that these lessons have been most carefully prepared.

The authors' aim has been in every instance to bring into notice every expression peculiar to that particular subject. As Mr. Swan expressed it in his Training Class for Teachers, "Every scene becomes, as it were, a set palette with words for colours, from which the artist can apply to his picture every tint or variation of tint that is needed; he knows in a moment where each is placed. What scene does the word '*wrench*' recall to your mind?" he asked. "A dentist drawing a tooth," was the reply, and Mr. Swan suggested the more accurate image of a blacksmith's forge and the wrenching off of the old horse-shoe. Deaf pupils soon grasp the value of this association of certain words with certain scenes, and it is no uncommon circumstance in the writer's school-room that when a new word thus acquired occurs again in another connection, say in a geography or history lesson, and is hesitated over by one pupil from whose mind the meaning has passed, it is recalled by a companion naming the subject of a former series lesson. Thus hesitation at the word "prepare" brought out the cry, "Don't you remember the brooding hen?—'The farmer's wife *prepares* a place for a brooding hen'—I know very well it means '*gets ready*.'" Or, again, "Cast." "Cast means *throw*, of course; don't you remember about 'the sower *casts* the seed broadcast' in the corn-field?"

Here we not only get a mechanical association of certain words with certain scenes; we have also the easy translation into equivalent terms, a most valuable exercise. For, let it be carefully noted, the whole aim of the method is to let nothing remain mechanical, except so far as we are compelled to apply definite sounds or written forms, since the verbal expressions of the ideas called up by certain existences, actions, qualities, or relations of terms, are the utterances or words that make up the particular language studied.

The earlier lessons on Toilet, Meals, etc., are easily illustrated and the actions actually performed by the use of the objects required or of toy models of the same. But as the pupils' range of language increases the meanings of new terms are no longer acted out, but are given by the use of equivalent terms already known, except when the new phraseology is such as to require the actual subject to be presented in order to insure a thorough mental grasp of the idea desired to be conveyed. This makes it possible to give lessons, at this stage, on subjects outside the school-room, but these lessons should still always recall to the pupils facts and scenes that they have previously been acquainted with or passed through. If there has been no such experience for individuals of the class, opportunity must be made for giving them this, either by an excursion taken for that purpose or, when possible, recalling attention to the subject when fitting illustrations occur during the walking or recreation hours. Teachers who confine their instructions within the walls of their class-room can never efficiently teach deaf pupils, for these must see and test and handle for themselves, if they are ever thoroughly to grasp the meaning of agricultural, manufacturing, or other technical processes described to them, and the same applies to scientific research and experiments in more advanced studies.

The ear being closed, the eye and the sense of touch must do double duty, which, happily, nature herself inclines them to do, if only the same permission be granted to carry out her wise impulses in the pursuit of knowledge in hours of study that curiosity claims in hours of relaxation for pleasure and amusement. Those who employ the Series Method are expected thus to bring their pupils face to face with every scene described; and if this plan be followed, as it is by all the best teachers, great gain will result to the deaf. This brings to our notice another great advantage of the method when systematic-

ally carried out. It produces and encourages in the learners an eager observation of all that occurs around them, and awakens the spirit of inquiry, finding vent in questions as to *how* and *why* concerning what they see taking place. Out of this grows the use of question forms and a readiness to comprehend and eventually produce good descriptions of actions and events, the basis of all composition.

This method can be employed under the manual method by the use of finger-spelling or writing, but it is of special value to teachers following the oral method. For this it has added advantages in increasing the power of rapid lip-reading and easy repetition of consecutive sentences. A fuller gain still is the opportunity, when going over a lesson, to intersperse subjective phrases somewhat after the manner followed in "Class-room Conversations in French" (French Series), by the same authors.

These hints for conversation may appear in English form later, but this will probably depend on the reception given to the books here under review, or possibly less formal methods will be adopted for suggesting these in some of our circulating educational papers, where adaptation to the deaf can be made their sole object.

It is not for a moment supposed that these Series lessons are to do away with all methods and lessons already employed in the various schools, or to stand in the way of other studies. When employed they will soon prove their own value and, besides, their intrinsic worth will be found to open many doors to the easier acquisition of the language of books—literature—for they do in truth by art supply the place of the colloquial language possessed by hearing children before coming to school, in their case unconsciously gathered and stored up by the ear and memory.

I have not attempted here to give the variety of exercises, both intuitive and grammatical, to which these les-

sons lend themselves. My aim has simply been to draw attention to the store of valuable educational matter contained in these books. May they indeed conduce, as they are so well adapted to do, to place in the possession of our deaf a readier command of the English language!

SUSANNA E. HULL,
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THE FIFTEENTH MEETING OF THE CON- VENTION.

GALLAUDET COLLEGE,
WASHINGTON, D. C., *March 15, 1898.*

As announced in the formal call published in the January number of the *Annals*, the Convention of American Instructors of the Deaf will hold its fifteenth meeting in the Ohio Institution for the Deaf and Dumb, at Columbus, beginning on Thursday, July 28, 1898.

The Convention will be called to order at 3 o'clock in the afternoon of that day, when addresses of welcome and responses will be made.

It is not practicable at this time to publish any program in detail, but members will be interested to know that the Committees on the Normal, Industrial, Oral, Auricular, and Kindergarten sections have been for some time actively engaged in preparing for the work in their respective branches, with every assurance of being able to secure valuable papers, and to arrange for interesting and profitable discussions.

The Convention will probably remain in session a week, and members, both active and honorary, will be entertained at the small charge of seventy-five cents per day each.

Mr. J. W. Jones, Superintendent of the Ohio Institution, has been appointed Local Committee of Arrange-

ments, and to him due notice should be given of purpose to attend the Convention.

Mr. Jones has assurances from railroad officials that very favorable rates will be granted, but is not able to give details until a later date.

All persons desiring to present papers, or wishing to suggest subjects for discussion, are requested to communicate with the chairmen of the Section Committees, as follows :

A. S. Clark, Normal Section, School for the Deaf, Hartford, Conn.

Warren Robinson, Industrial Section, School for the Deaf, Delavan, Wis.

Joseph C. Gordon, Oral Section, Institution for the Deaf and Dumb, Jacksonville, Ill.

Philip G. Gillett, Art Section, Jacksonville, Ill.

J. A. Gillespie, Auricular Section, Gillespie School for the Deaf, Omaha, Neb.

Mary McCowen, Kindergarten Section, McCowen Oral School, 6550 Yale Avenue, Chicago, Ill.

As the coming meeting of the Convention will be the first held since the adoption of a constitution, and the passage by Congress of an act conferring corporate powers on the Convention, the members of the Standing Executive Committee express the hope that members of the profession and others interested in the education of the deaf, especially trustees and directors of schools, in the countries occupying the continent of America, will show their interest in the old organization under its new and promising conditions by being present in large numbers at Columbus.

A cordial invitation is also extended to instructors of the deaf in other countries than those of the American continent to attend the Columbus meeting as honorary members of the Convention.

In behalf of the Committee,

EDWARD M. GALLAUDET,
President of the Convention.

SCHOOL ITEMS.

Gallaudet College.—A colossal bust of the Abbe de l'Épée by the deaf sculptor, Felix Plessis, has been presented by the deaf people of France to President Gallaudet, in grateful recognition of his advocacy of the Combined System of instruction. It will be unveiled on Presentation Day.

Kansas School.—Miss Myrtle Foote has resigned her position as teacher, and is succeeded by Mr. C. D. Adams, late boys' supervisor.

Michigan School.—Miss Belle Schrikema, a teacher in the School since 1895, died February 27, 1898, in Butterworth Hospital, Grand Rapids, Michigan. She had typhoid fever last summer, followed by quick consumption, but kept at her work of teaching until just before Christmas. She was graduated from the School in 1895. During her last year as a pupil she taught a class half of each day, and immediately after graduation was appointed a regular teacher. Her associates say of her that "she was earnest and efficient. Her ambition and delight were to confer on her pupils what she had herself received—the priceless boon of education. Her work did not cease with the close of the daily school session. She mingled with the pupils, and by her friendly sympathy exerted a wholesome Christian influence."

Missouri School.—The Board of Regents of the University of Missouri have passed a resolution admitting the graduates of this School, without examination, into the schools of Agriculture and Mechanic Arts connected with the University.

North Carolina (Morganton) School.—The erection of a new school-building has been begun. It is to be built of brick, with a slate roof, and is to be completed by September 15. The wood-work will be done by the Wood-Working Department of the School.

Ohio Institution.—Miss Letitia Doane, who has been connected with the Institution as a teacher for nine years, six in the manual department and three in the oral, has resigned her position to take charge of a class of four pupils in La Salle,

Illinois. She is succeeded by Miss Anna Clark, who has been a teacher in the New York Institution for the past two years.

Virginia School.—The name of the School has been changed by the legislature to "The Virginia School for the Deaf and the Blind."

MISCELLANEOUS.

Russian Schools.—Mr. C. Hörschelmann, Director of the Gotthard Institution at Fennern, Livonia, in a recent report to the Volta Bureau, supplementing its statistics in regard to Russian Schools, says :

We have in Russia a total of 26 institutions for the deaf, viz : In Finland six, having some 400 pupils ; in the Baltic Provinces six, having some 200 pupils ; in Russia proper thirteen, having some 700 pupils ; in Warsaw one, having some (?)*, making a total of 26 institutions with 1,300 pupils and 200 teachers.

In Finland all of the schools are State institutions, and involve an annual expenditure by the Finnish Government of some 200,000 marks. According to the census of 1890, the enumerators reported 2,767 deaf-mutes, of whom 629 were of school age (8-12 years). In Russia proper only two institutions are supported by the Imperial Government ; the remainder are sustained by municipalities, associations, benefactions, contributions, collections, interest on trust funds, and pay pupils. There are three normal institutions, respectively, in Fennern, Mitau, and recently in St. Petersburg. According to an article on Deaf-Mutism in the most recent edition of Schwabach's "*Medicinische Realencyklopädie*," 97½ per cent. of the Russian deaf are uneducated. In Finland all institutions have separate Oral and Manual departments. In the Baltic Provinces the Oral method prevails ; of the thirteen institutions of Russia proper six are Oral, two follow the Manual method, and the rest the Combined System.

The Trans-Mississippi Educational Convention.—In connection with the Exposition to be held at Omaha, Nebraska, during the coming summer, an Educational Convention will be held June 28, 29, and 30. One department of the Convention will be devoted to teachers of the deaf and of the blind, and will be under the direction of Mr. J. A. Gillespie, of the Gillespie School for the Deaf, Omaha, Nebraska.

* This Institution reports to the Volta Bureau direct as having 40 teachers and 201 pupils.

Helen Keller.—In consequence of serious differences between Miss Sullivan and the authorities of "The Cambridge School," where Helen Keller was successfully pursuing her preparatory college work, as described by Mr. Arthur Gilman in the *Annals* of November last, Helen was removed from the School just before the Christmas vacation. The question at issue was not merely, as stated in the newspapers at the time of the rupture, whether a shorter or longer period was required for her preparation for college, but also whether Miss Sullivan should be allowed to remain with her as a companion. Helen sided warmly with Miss Sullivan, and indignantly refused to accept any advantages for herself which involved a separation from the beloved teacher who had done so much for her in the past. Some of Helen's friends think the authorities of the School were in the wrong, others think Miss Sullivan was ; but all are agreed that Helen herself was entirely free from blame. At present she is residing with Miss Sullivan in a private family near Boston, and is pursuing her studies under the direction of a private tutor.

Foreign Periodicals.—Two new monthly periodicals relating to the education of the deaf have recently appeared: *El Sordo-Mudo Argentino*, published at the National Institution, Buenos Aires, Argentine Republic, under the direction of Mr. J. P. Díaz Gómez, and *Les Annales Françaises des Sourds-Muets*, edited by Mr. G. Bertoux, an instructor in the National Institution at Paris, France. The two periodicals formerly published at Paris, the *Revue Française* and the *Revue Internationale*, have both died.

The Annals.—When the publication of the *Annals* was changed from quarterly to bi-monthly two years ago, the price was raised from \$2.00 a year to \$3.00, in order to meet the increased expense. The Committee now feel justified in reducing the price to \$2.00, beginning with the year 1898. Subscribers who have already paid for this year at the rate of \$3.00 will have their subscriptions extended six months free of charge, or, if they prefer and will notify the editor to that effect, \$1.00 will be returned.

AMERICAN ANNALS OF THE DEAF.

VOL. XLIII, No. 4.

JUNE, 1898.

ANALOGY THE TEST OF TEACHING.

EVERY teacher who is at all interested in his work has sought some means of knowing unmistakably whether the pupil's expression in language represents a clearly conceived idea, or is the mere repetition of a parrot. In other words, he is concerned not so much for the apparent results as for the processes by which the results are obtained, and what the results really represent in the pupil's mind. Every true teacher wants a test which will at once stamp each pupil's work as the expression of a thoroughly assimilated idea, or simply the mechanical operation of the memory. He must prove constantly that the pupil expresses his own thought, for no other work is worthy of the name of education, and nothing else can guide the teacher in the proper selection of the subject-matter of instruction.

The proof of the lesson is in the application of it. Many teachers have long followed the plan of giving words and phrases to be incorporated into sentences, without understanding why the exercise is valuable, or knowing what mental processes are required to perform the exercise as it should be performed. The teacher should be able to detect at once whether the pupil is merely juggling with words, substituting here and changing a little there, or whether he enters into the spirit of the exercise, grasps

the meaning of the word or phrase, and selects from his observation or experience circumstances which make a perfect setting for the new expression. To do the latter requires thought and is an exercise in training as well as a test of understanding. It is easy, however, to distinguish the two processes, and no teacher need be deceived by the superficial work. The application of this method involves the highest processes of thought, the analysis and the analogy, and the teacher should follow this method from the applications of the simplest words to the most abstract principles. As a test it is absolute. A pupil may be able to give "the sign" for a given expression, he may be able to give a definition of it, he may use it in its original setting, but these tests are not sufficient to prove a clear understanding of the term or principle. The real test is to eliminate the idea from its original surroundings and introduce it into analogous conditions in a way to show that the meaning is understood and its idiomatic construction is known. The ability to use an expression is the test of knowing it.

Some one has asked, "Which is the natural way of learning language,—to require pupils to hunt about for ideas to fit certain words, or to encourage them to seek words to express ideas that they already possess?" The answer is, "Both." The child hears certain words and phrases in connections and circumstances which make them convey a certain meaning to him, then you will soon find him making an application of the new expression to similar circumstances, invented, in most instances, to fit the expression, and this constitutes a large part of the child's play. It is a constant process of receiving and giving, the latter forming much the larger share of the developing process. The hearing child's progress in the acquisition of language is due not so much to the number of words he hears as to his disposition to repeat every new expression in innumerable applications in his play.

It is the application which involves thought and is the real test of understanding. The more of these exercises we introduce into our school work the greater will be the progress in language.

Let us apply this process to the school work. A phrase which is new to the pupil occurs in the lesson. The pupil may gain a fair idea of its meaning from the context and be able to write a test sentence at once, but this plan would involve many mistakes and much time spent in correction. A better plan is for the teacher to write one or more sentences illustrating the use of the phrase in connection with familiar circumstances, each illustration making the meaning more clear and aiding retention. Then the pupils write their sentences. These are corrected, and then spelled or written for the class to read. Here, then, are upwards of twenty applications of the phrase with very little expenditure of time. The trouble with most of us is that we try to cram a large vocabulary into our pupils' heads in various ways, which they are not trained to use. To learn the meaning of a word is one thing, a comparatively easy matter, and to know its idiomatic construction in the sentence is another, fully as important, but much more difficult to attain.

So much for the method as applied to primary work. The trouble is teachers rarely advance beyond this primary use of the principle. I have mentioned in a previous article* the use I have made of the analogies of history and geography, referring new subjects as they appear in the lesson back to analogous subjects of previous study. In this article I wish to show how the same principle may be applied in language teaching, bringing out in the same manner as we treat words and phrases the more complex principles and combinations of principles. To keep the pupil at work constructing sentences from words and phrases throughout his course will never result in the

* "How to Study," *Annals*, xli, 265-274, 370-380.

trained mind able to analyze a subject into its leading principles and apply those principles to the business of life. The exercise in analysis and analogy should be the foundation of a very large share of our teaching from the kindergarten clear through the greatest difficulties of the course. Show the child something that is red, and then require him to select all red articles from a group. The same with things that are round. So with words; if the pupil catches the meaning, let him apply it in the sentence. If the pupil understands the use of an adjective clause, let him give a sentence illustrating it. If he understands a principle involving cause and effect or motive for action, let him apply it to some experience of his own, to some creation of the imagination, or to some incident of observation or acquired knowledge. This is a perfect test, and it is also one of the best methods of strengthening the logical memory.

The following examples of school work along this line have been corrected in minor details of language, but the thought in each case is original. The stories on which the analogies are based have been treated in various ways, according to the difficulty of the subject. Some of them have been the regular lessons in the reader, while others have been given first as an exercise in reproduction. In almost all cases illustration of the lesson by drawing has been required in order to make sure that the backward members of the class have a clear idea of the subject. By drawing, many wrong impressions are revealed in cases where the language of the reproduction gives no clue to the error. Then, by questioning, the teacher draws out the leading principles involved in the story, and these written on the board give the pupils their working analysis. The pupils then write their analogous stories, which they compose from memory, observation, experience, or imagination. After a little practice in this work, the pupils are left to do the work of analyzing the story and outlining the leading principles without aid.

Æsop's Fables are well adapted for this kind of work. One of the first to be given was "The Fox and the Crow." Almost every one in the class analyzed this into its leading principles—cunning and flattery on the part of the fox, and vanity and weakness on the part of the crow, and applied them in a story of his own. A few specimens of the pupils' work will illustrate better, perhaps, what they can do. The following was written to illustrate the story of "The Lazy Grasshoppers :"

Albert and Billie lived in the country. Albert was very industrious and worked very hard for a living for his wife and children and himself. When the new year came he plowed his farm, and when spring came he planted the crops. He cultivated, and hoed the weeds as hard as he could all summer. In the fall he sold his crops and got lots of money. He had enough to buy clothes and food for himself and family. They were happy and comfortable in their own home. Billie did not work hard on his farm, but wasted nearly all his time. He rode his horse to town every day, and took pleasure in drinking and smoking with bad company the whole year round, while Albert was hard at work on his farm. In the fall Billie had a poor crop. He did not get money enough to buy food and clothes to support his wife and children, and so they became beggars. Billie went to Albert's home and begged some food and clothes for his wife and children. Albert said to him, "What did you do all the year? Why did you not raise crops on your farm?" Billie answered, "All the year I went to town to have good times drinking and smoking, and also went hunting with my best friends." "I have worked very hard on my farm all the year, and now we are comfortable and happy. But we have nothing to share with you, for we need it all for our own living," said Albert. "How stingy you are!" cried Billie. "How lazy you are!" answered Albert. Billie and his wife and children were starving to death. You all must follow Albert's example.

There is nothing very difficult about this, but the pupil who wrote it is on the right road to an education and already has a good idea of one phase of life. Take another—"The Dog in the Manger :"

A rich man had a lot of muskmelons growing in his garden. He did not want to eat them all, and he could not sell them. One day some boys came and knocked at the door. The rich man opened the door and the boys said to him, "Do you want to eat all your muskmelons?" The rich man answered, "No; I can't eat them." The boys said, "Please give us some of them." "No," said the old man. A few weeks afterwards the

boys passed the rich man's garden and saw the rotten melons on the ground. "What a mean man he is," said the boys.

Here is one to parallel the story of "Cock-a-doodle and the Piece of Gold," which shows that the pupil is beginning to read the newspapers :

A man was crossing the snow of Klondike. He had no food. He travelled several days trying to find food. At last he saw something lying on the snow. He ran to it and found it was a bundle. He opened it and found it was gold. "It is worthless to me," he cried; "I would rather find a loaf of bread than a million dollars' worth of gold." And soon after he died of starvation.

"The Wind and the Sun" brought out the following from a bright girl :

Once a large boy wanted his little brother to do something for him, and when the little fellow refused he shook and scolded him. Still the little one refused. Just then their sister came along, and, seeing the trouble, told the larger boy to stop. Then, petting and talking kindly to the little one, she finally got him to do as the elder brother wished.

The following is a little girl's first attempt, based on the story of "Red Riding-Hood :

One night two little girls sat up near the table reading books. They were alone in the house. A man came to the door and knocked. They thought it was Santa Claus. They ran to the door and opened it, and welcomed him. They asked him, "Are you Santa Claus?" He said, "Yes." They asked him, "Will you give us some presents for Christmas?" He said, "Yes." But he was deceiving them. He asked them to show him the safe in the kitchen. They let him go into the kitchen. The man opened the safe and got some food to eat. He took all the food and stole some other things and ran away. The girls were not wise to let the man come in and talk with him. He was a robber, not Santa Claus.

"The Monkey and the Cat's Paw" brought out the following analogies :

James and Frank saw many watermelons in a field. James said to Frank, "You go in and get a nice watermelon." Frank went in and got it, and was climbing the fence, when the dog caught him by the pants. Frank dropped the watermelon. James caught it and ran off with it. James was free and had a nice time eating the watermelon, but Frank was caught.

Ruby was a bad girl. She had a little sister named Sallie. One morning they were sitting near their mother watching her cook some sausages. The sausages were almost done. Their mother went out for a minute.

Ruby told Sallie to take out one of the sausages for her. Sallie was innocent. She went to the fry-pan and tried to get one of the sausages, but the hot lard blistered her fingers. She tried again and was successful, but she burned her finger. She dropped the sausage quickly to look at her finger. In a moment she turned round and found Ruby was eating it.

“The Battle of the Birds and Beasts” was the basis for this:

There was once a great battle between the birds and the fish. The duck was a coward. It could not choose which side to take. When the birds were nearly defeated by the fish, the coward duck went to help the fish. The fish said, “You are not a fish.” But the duck told them that it was a fish and could swim as well as any of them. Just then the battle turned and the birds were successful. The coward duck flew over to join the birds. The birds told the duck to go away, as it belonged with the fish. But the duck told the birds to look at its feathers and wings. “I can fly as well as any of you,” said the duck. But the birds knew its trick and drove the duck back to the water.

There are several important benefits derived by following this method which do not appear at first thought. In this as in all other exercises the teacher may aid the pupil and wake up his mind by presenting good illustrations, but the application of the pupil himself is the only work that really benefits him.

Sometimes the principles in a story will call up experiences not perfectly understood. A little thought will not only render the experience a good analogy, but serve also to make clear the experience itself which before was vague and had no real place in the intellect or the character. I have watched these operations in my pupils as well as in my own study. The process of completing the analogy renders clear both the new subject and the past experience with which it is compared, and forms a strong link in the memory. In all this work the teacher will aid the pupil to develop thought and make each point more distinct by bringing out the contrasts to the principles in the lesson. Whenever a story presents a foolish action, let the pupils solve the problem of the wiser course to be pursued under the circumstances. The ideal lesson is

closely connected with the life of the child, past, present, and prospective. The use of the analogy gives the opportunity for these applications to life.

The teacher who pursues this plan will find himself drifting with his class into real literature, for there must be in the subject-matter selected for instruction something of vital interest, some vital principle of life, as a foundation for the exercise. For this reason alone it should claim the attention of thoughtful teachers.

Another point of great value is that it trains the pupil to grasp the selection in its unity. Some pupils read words only, others read sentences, still others take in paragraphs or sections of a story, while but few take in the story as a whole. This, of course, depends upon the difficulty of the piece selected. The ability of the pupil to grasp the lesson in its unity should be the teacher's guide in the selection of subjects. The course should be carefully graded to meet this requirement. In order to test your pupils in this respect, give them for a lesson an incomplete story, or one with some important link in the connection left out, and see if they will notice the fact that the story lacks unity. When the lesson given in the book is a chapter of a continued story, see how many have noticed the fact and have been interested enough to read the story to the end.

The use of this exercise is not only a guide to the selection of subject-matter, but it is also of great value for purposes of grading pupils. It is a test which discriminates growth and power, and for this reason should supersede tests which rely chiefly on the memory.

I have found no other exercise which seems to embrace so many good features. The repetition of applied language and applied principles is gained with economy of time and of energy. It gives a wide field for the use of the imagination along lines carefully drawn by the principles contained in the lesson. It offers the best

opportunity for the study of human character and human motives, and the discrimination of the principles of morality. It arouses the highest interest in study, for nothing can do this better than an immediate use of the knowledge we acquire. It is an exercise which compels study according to correct principles.

There is another phase of this subject which may be very profitably carried on in connection with these exercises. Literature and much of our daily conversation is full of expressions which in a literal sense mean nothing, figures which give to language its grace and beauty, and which depend upon the cultured imagination as well as the understanding for the pleasure they give to the reader. The simile, the metaphor, and the allegory, founded on resemblance, form a large part of the figurative language in common use, and training along this line will not only prepare the pupil to understand and appreciate the beauties of our language, but it is also a training which compels study of the right kind and results in the power to think.

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HEARING DEAF-MUTES.—II.*

THE adherents of auricular exercises betray a lack of discriminating valuation of facts when they assert that in the partially deaf the hearing is gradually developed into the hearing of vowels, then of words, and finally of sentences. The articulation exercises in deaf-mute schools begin with the development of individual sounds, and then proceed very slowly to the construction of syllables, words, and sentences. In the course of this progress, whatever residue of hearing may exist is likewise exer-

* Continued from the April number of the *Annals*, page 169.

cised, but it is fallacious to assert that persons with a minimum of hearing can attain to the actual hearing of words and sentences.

For the accurate comprehension of words and sentences it is necessary that, besides the vowels, one should hear also the consonants, or at least some of them. The majority of the deaf-mutes under discussion, however, never get so far. When they correctly repeat a familiar word that reaches their ear, it is because of the indistinct collective sound which they have perceived.

The pupil depends upon guessing, makes substitutions and combinations, joins into a complete whole the fragments of the word or sentence that reach his ear, but always hesitates and is never sure that he has hit upon the right interpretation. It is always the rhythmic quality of words and sentences, as marked by the vowels and depending upon the cadence of the syllables, that these deaf-mutes cling to, and it is by these that they recognize or guess at what has been spoken. The more points of connection they find in what has been spoken, and the more familiar the words and sentences, the greater their accuracy in completing, comprehending, and repeating. They repeat a familiar *phrase* with less hesitation than an isolated *word*, and a noun *with* the article more readily than the same noun *without* the article. The same conditions exist in this process of hearing as in the process of lip-reading. In the latter the deaf-mute recognizes fragments only of what is said, and it is his task quickly to supply the missing parts and to hit upon the correct interpretation. When familiar words and phrases are used he performs this task with comparative ease and accuracy, but when new expressions are employed he is nonplussed.

During the last few years I have experimented repeatedly and carefully with such of my pupils as had some hearing. These *experiments* were not aural *exercises*. I

found that they could recognize through the ear familiar phrases with considerable accuracy, while as soon as I used new expressions and *single words* their ears were embarrassed. Thus "leak" became "weak;"* "take air" was rendered "take care," while the sentence "Immanuel Kant lived in Königsberg" was rendered by two of the boys as "A man can't live," the boys thereupon turning around and facing me to indicate that they had reached the end of their tether. A year later, after these boys had learned something of Kant and Königsberg in their geography lessons, they were able to repeat the same sentence correctly. To-day I made similar experiments, leading to the following results: *Teacher* (standing behind several of the pupils): "An axe." *Pupils*: "A box," "An ox." *Teacher*: "A mouse." *Pupil*: "A house." *Teacher*: "The hose blows on the bush." *Pupils*: "The rose grows on the bush," "The rain flows on the bush." *Teacher*: "The hunter shuts the log." *Pupil*: "The hunter shoots his dog." *Teacher*: "Snow is cold." *Pupils*: "The snow felt cold," "Snow is cold." *Teacher*: "The bow shot at its mark." *Pupil*: "The snow fell in the dark." *Teacher*: "The barber bit him wildly." *Pupil*: "The papa hit his child." *Teacher*: "The seasons pass, the year goes round." *Pupil*: "The seasons pass, I walk around." *Teacher*: "All men must die." *Pupil*: "All men must die."

The careful reader will easily perceive what I have been trying to prove from these few examples. It will be readily seen that it is at least premature to speak of "verbal and sentence hearing" in deaf-mutes of this class. For what they actually hear is limited to the vowels and to the rhythmic conditions in word and sentence. When such pupils in the course of time recognize familiar words and phrases through the ear, it is not

* Throughout this paragraph analogous English expressions are substituted for the illustrative words and sentences of the original.

the perceptive capacity of the auditory organs that has been increased, but, on the contrary, we have to deal with the development of the apperceptive process—with a manifestation of the quickening intellect. It is not that *deaf-mutes* learn to hear and speak by virtue of these auricular exercises, but rather that the *partially deaf apparently* learn how to hear *better* by means of systematic instruction in speech and language.

These circumstances thus explained ought to be familiar to every deaf-mute teacher, and therefore our Viennese colleagues should have felt it their duty to state the case plainly to Professor Urbantschitsch and his disciples, instead of encouraging them in the belief that the pre-existent hearing was a product of their auricular exercises. And if now some of the teachers at Vienna attempt, in print or otherwise, to make proselytes to their creed among the brethren of the profession, they should first prove that their deaf-mute pupils hear better, speak better, and are more efficient after the introduction of the acoustic exercises than before. They must separate from their artificial results the natural development of the hearing, which would certainly have been attained by systematic instruction in speech and language, and, after this process of subtraction, demonstrate that there is an appreciable increment of hearing. The exponents of the method have, however, failed thus far to submit this proof.

For many years I had given special attention to the partially deaf, and it was therefore a cause of great satisfaction to me when, in the autumn of 1895, I was able, with the sanction of my superiors, to visit the institutions at Vienna. I entered these schools full of high expectations, but the importance of the subject compels me to make the unqualified confession that I was sadly disappointed. The alleged success of these auricular exercises had led me to expect that the pupils of the Vienna Institutions would be conspicuous for a clear articulation, a

marked command of language, and therefore a comparatively high mental development. But of all this I could discern nothing. In fact, I think I am simply stating the truth when I maintain that the Vienna Institutions are perceptibly inferior in their worth to many other deaf-mute schools, in which no auricular exercises whatever are employed. But what struck me most as strange at the Döbling Institution was Mr. Lehfeld's statement that these auricular exercises had lately been somewhat neglected for lack of time. Mr. Lehfeld also makes a similar statement in his latest article ("The Auricular Exercises at the Döbling Institution according to the System of Professor Dr. Urbantschitsch," published by the author), in which, on almost every page, he lays stress on the "beautiful results" of the auricular method. In the face of the importance which the Döbling Institution attaches to auricular exercises, this contradiction is hard to understand.

I must agree with Mr. Lehfeld when he says, on page 27 of the article mentioned: "In spite of the greatest assiduity and painstaking care on the part of the teacher, it cannot be denied that the articulation of the deaf must be stigmatized, in many cases, as discordant, harsh and rasping, and as understood only with difficulty. Therefore it should be our great object to make the speech of our pupils as clear and harmonious as possible. If we find the auricular exercises helpful toward this object, it is the duty of the teacher to employ the same in order to deprive these well-founded criticisms of the articulation of the deaf more and more of their force," etc., etc.

The defects in the articulation of the deaf here particularized exist not only in "many cases," but rather in *most cases*, and, therefore, Mr. Lehfeld, if he really believes in the efficiency of the method he recommends, would have every reason to make the most extensive use of it. But it is now universally recognized that dumbness is a result of deafness, and every expert knows how time-

tematic teaching. These children have not had their hearing restored by auricular exercises, but rather a systematic course in articulation and language has endowed them with the ability to use more and more extensively *the hearing they had always possessed.*

The German school of deaf-mute instruction is in danger of being burdened with a new fallacy, and, therefore, I beg leave, humbly and respectfully, to invite the Vienna defenders of the auricular method, as well as the authorities, to investigate the accuracy of my statements and deductions. I feel all the more justified in making this challenge, as already a certain disposition has been manifested on the part of the authorities to offer up victims on the altar of a theory whose treacherous plausibility is calculated to convince even an expert.

My arguments might produce the impression that I regard every intentional effort to influence the scanty residue of hearing in our deaf-mutes as useless. Far from it. In my opinion, the Viennese agitation may prove a great blessing to a part of our pupils, provided that the exercises do not degenerate into a farce, and do not start with the avowed purpose of actually creating hearing in the deaf, but rather of impressing any already existing hearing into the service of language acquisition.

Any auricular residuum is of the greatest importance in the education of the pupil, and it is, above all, of incalculable value in the acquisition of speech. Measures may be taken looking to the employment and full utilization of such hearing so that the pupil may come into possession of our language in the most convenient, shortest, and quickest way, and may, as early as possible, awake to the fact that articulate sounds serve as a medium of thought. Among these measures we must count the application of a suitable trumpet even in the development of the first rudiments of speech, the trumpet being so constructed that the pupil may hear the sound of his

own voice and compare it with the voice of the teacher. According to my own experience, the use of such ear-trumpets cannot but be recommended, and, at the same time, I would advise that the children be provided with them, not only during school hours, but also during their leisure time, so that they may make vocal and auricular efforts at their own pleasure and with leisure. Nor is it to be apprehended that the children will thus destroy their hearing by immoderately stimulating the organs. The pupil himself speaks only so loud into the instrument as is requisite to his aural capacity and agreeable to himself. The teacher, of course, must be carefully considerate of the degree of hearing that may exist, and avoid causing pain by speaking too loud. The child learns by comparing his own tones with those of the teacher—with true deaf mutes, however, this is but seldom the case—to adjust his vocal cords with precision, his voice will become more natural, and his speech will not be lacking in that harmony which is generally so much wanting in the articulation of the deaf.

A more important matter would be to instruct the partially deaf in special classes. As long as partially deaf children are instructed in the same classes with *bona fide* deaf-mutes, and receive the same treatment as the latter, the hearing they possess, together with their other gifts and capacities, are not sufficiently utilized and taken advantage of. The partially deaf could be developed much more quickly in mind and speech if they were not held back by the totally deaf, and that, too, from the very first to the very last of their school days. Such a separation has been recommended for years, not only by teachers of the deaf, but also by experienced aural surgeons. Professor Tröltzsch, the famous aurist, years ago, made the following remark concerning the partially deaf: "One must not forget that among the deaf, *i. e.*, the pupils in the deaf-mute institutions, not all are deaf, that is, wholly

devoid of hearing. Many of them respond to loud noises. But, under existing circumstances, deaf children with even a comparatively high degree of hearing must be taken to these institutions. These children, however, are not on this account strictly deaf-mutes. There is little doubt that in the future we shall have special schools in which the education of the partially deaf can be conducted in the proper manner."

In my opinion the time is now ripe for the establishment of such schools, and for this we must thank the agitation originating in Vienna. In Denmark such a division of the deaf into special classes has already been effected, the partially deaf being educated at Niborg, the bright and ordinary *bona fide* deaf-mutes at Fredericia, and the dull deaf-mutes at Copenhagen, each class according to appropriate methods. It must not be overlooked that such a division will meet with difficulties in larger states, but it is really only a question of time. At all events, such a division is even now practicable in the big schools with from 200 to 300 pupils. All that is needed is the willingness of those in charge.

In my opinion it would therefore be expedient—

1. To instruct the deaf who enter school with some hearing, and also those with more or less ability to speak, in special classes.
2. To furnish these classes with suitable auricular appliances which may render to the ear a service similar to that which glasses render to the eye.
3. To provide these classes with a teacher having vigorous vocal organs, who can thus without fatigue constantly train the feeble hearing of his pupils.

We must acknowledge that the credit of having called emphatic attention to the circumstance that there are pupils in our German schools for the deaf who may properly be said to hear belongs to our Vienna colleagues. This fact, I regret to say, has generally been intentionally

suppressed in the profession, the object being to create interest among the public and the authorities in a method whose results are in a very large measure due to our kind foster-mother, Nature.

If a one-eyed person may be called a king among the blind, we may with the same license say that one who has some degree of hearing is a prince among the deaf. It does not require any special intuition or acquaintance with the art of teaching the deaf to see that it is much easier to reach the minds of such children than those of true deaf-mutes; it is evident, above all, that the partially deaf occupy a very different position, in regard to speech, from the totally deaf.

With the partially deaf we must also rank those children who became deaf after acquiring speech, and who therefore entered school able to speak. It is by means of these "semi-mutes" that for many a day visitors to our schools have had the wool pulled over their eyes. It is these pupils who stand in the foreground at public exhibitions and on other occasions and cause such sensation with their attainments in articulation. With these children the method now in vogue achieves really splendid results, and therefore, as I said in my work published in 1889, "The Deaf-Mute and his Language," "The method now in vogue fits these children like a glove." But we must remember that the semi-deaf and semi-mute constitute a comparatively small part of the children entrusted to our care. Under existing methods of instruction what is the fate of the true deaf-mutes and of the many who are of feeble capacity?

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[TO BE CONTINUED.]

THE CORRELATION OF INSTRUCTION AND ENVIRONMENT.—II.*

RATHER in the spirit of inquiry than with any desire to dogmatize, the present article will deal with a few applications of the principles stated in the previous article. The opinion was therein expressed that the greatest fault of the majority of teachers of the deaf is too much abstract teaching, or the failure to correlate properly instruction and environment. We do not build directly from and upon the pupil's experience with sufficient care. We are especially apt to neglect the immediate and direct association of language forms and number symbols with clear, vivid, actively present mental imagery. The source of this error is the failure to study the child's mind sufficiently and take its contents as the basis and predetermining factor of each new step in instruction. The result is that we are constantly trying to teach ideas, or symbols of ideas, in such a way that the pupil can perceive no clear or essential relationship to his previous experience or present knowledge. If this is the case, then those ideas are not likely to become accurately and clearly associated either with the symbols representing them, or with other ideas of their class previously acquired, and therefore through false associations they will often become stumbling-blocks, rather than stepping-stones to higher and broader levels of thought.

In the development of mental power we are hardly more concerned with the giving of new ideas than with the proper inter-association of these and old ideas along lines of true generic classification or causative sequence; and in the teaching of language we are chiefly concerned with the permanent, and in all particulars accurate, association of the word symbol or sign with the thing signified. Though

* Continued from the January number of the *Annals*, page 32.

inseparable in practice, we may, in discussion, consider the latter phase of the subject as one of supreme importance to the teacher of the deaf.

Suppose a primary pupil is given a lesson in one of Miss Sweet's Language Series Books. He has but little trouble in learning the visual form of the word symbols. Comparatively speaking, he has plenty of ideas such as are expressed in the book. The great insuperable difficulty is that of easily and indissolubly associating each symbol or combination of symbols with its corresponding percept or concept. In the lesson assigned, the new words are generally briefly explained by the teacher. But even after the most exhaustive explanations the language still seems to the pupil artificial, and too often misty. No vivid mental imagery accompanies his reading of it, and the interest value of the story element in the lesson is completely lost because the main point is befogged in the mists of error and uncertainty. The next day a great deal of time is spent in having the pupil reproduce the language, in analyzing it, and in testing his knowledge of the thought conveyed. Unless under a very careful teacher, he is apt to learn word symbols much faster than he can properly associate them, and becomes in time an adept in writing with unfailing persistency the most exasperating jumbles of language. Meanwhile he is also likely to conclude, from the amount of memorizing and grammatical analysis required of him, that he can finally learn language by such memorizing and write it by rule, and fails to perceive the subordination of these valuable means to the far more fundamental principles of association. The underlying theory of the teacher upon this subject must inevitably have a far-reaching effect upon the pupil's conception of how the tasks set before him are to be accomplished.

There is of course no cure-all that will even approximately preclude such results as are indicated above.

Very little practical work renders apparent to the average teacher the extreme difficulty of leading pupils properly to associate and appreciate book language not descriptive of any particular experience of their own. Most of the abundant professional literature on the subject is devoted to the discussion of various devices for lighting up the darkness of the pupil's mind by an array of pictured grammatical analysis, or valiantly advocates the free use of signs to this end, with a few other minor aids. For instance, in the very practical series of articles recently published in the *Annals* on primary work, it will be noticed that great stress is laid upon the analytic study of text-book language by the use of complex diagrams, while little or nothing is said upon the importance of first giving in the greatest possible abundance language which shall call for the least amount of the distraction of thought and waste of time incident to explanation by diagrams and the abstractions of grammar.

It appears to me that such analytic teaching of book language in primary grades exactly reverses the true and natural process by which the mind should be prepared to associate word symbols most easily and perfectly with the root ideas represented. The more fully we can bring about the ideal conditions for such association, the more time and effort are saved to both teacher and pupil. It is clearly of the greatest importance that the first association of the word symbol or combination of symbols with the idea represented should be as nearly true and perfect as possible, since, if it is in any way false, numerous errors result, and the originally acquired impression becomes extremely difficult to change. Supposing this impression correct, its permanence will depend upon the degree of the attendant concentration of attention, and of the repetition under a variety of aspects which follows. In an untrained child concentration of attention depends more upon excited interest than upon the exercise of will power such as is necessary during the study hour.

It would seem that we minimize or directly disregard these tritely familiar principles when we require primary pupils to memorize the text-book language of stories about people and places and particular animals and things they have never seen, and expect them to reconstruct all these in imagination and imbue them with life and reality through the medium of vaguely understood symbols.

According to the principles set forth in this and the previous article, new word symbols should first come to the child as the representation of ideas previously excited and at the time actively present in his mind. In that case the symbols appear to him in their true light, as purely subordinate agents for the transference of thought, and therefore, in reading the language, he sees a great deal more than mere words. Undistracted by any difficult concurrent effort to imagine the forms and character of the things represented, the mind is left free to devote its whole attention to the proper association of the language with the thought, which is necessarily more nearly perfect than if unfamiliar book language were being interpreted. The element of spontaneity in such language as is the outcome of the daily common observations, interests, thoughts, and sympathies of pupil and teacher has a very great value in at once attracting the interested attention of the pupil. From week to week the vocabulary of the class can be as limited or as varied as the teacher thinks best. So far as we can decrease in this way the primary difficulties of interpretation, we are enabled to increase the volume of language given, or more particularly the amount of repetition, and thus take into better account the peculiarly fluent character of the English language, which led Sir Philip Sidney to argue that it was a "grammarless tongue."

It is not necessary to give any elaborate description of the numberless ways of putting into practice the princi-

ples above stated. Valuable suggestions along this line will be found in recent articles in the *Annals* by Miss Porter and Miss Moffat. The adaptation of kindergarten plays, action work, journal work, observation and object lessons, the description of elementary experiments revealing important facts in geography, physics, and botany, daily lesson leaflets, and a good weekly paper with plenty of local news are all valuable means to the end which we are seeking. From the fourth or fifth year on, I would especially emphasize the descriptive experimental work as an occasional very interesting substitute for journal writing, and an invaluable preparation for the later systematic study of the facts and subjects illustrated.

The important point to be emphasized here is that we use these valuable means intelligently, according to clearly perceived principles and a definitely outlined systematic plan of development. Like very sharp tools, they are necessary to the finest and most rapid work, but only ruin and disaster follow upon a blundering hap-hazard use of them. To the most successful attainment of the end in view it seems essential that the teacher prepare or adopt a carefully studied outline of model language forms, including especially essential verb forms to be taught; and that a class record be kept by which it will be possible to review under varying aspects the important new words, phrases, and idioms that have been given. Such records in connection with a thoroughly unified course of study will enable new teachers to review and continue the work of their predecessors with a minimum waste of time and useless repetition. It is also essential that the pupils be given daily the greatest abundance of properly adapted model language, to be copied and studied. Finally, to meet these general conditions, not simply well informed, but *specially trained*, teachers are required; and I believe the time is not far distant when the rising standard of our best schools will lead to the general acceptance of this re-

quirement. The same underlying theory that permits in some measure the predominance of the abstract text-book study of language will often lead to a like tendency in the teaching of arithmetic. One of the papers read before the Fourteenth Convention, while giving excellent practical suggestions on this subject, seems inclined to advocate the teaching of primary arithmetic as an abstraction, or, in other words, storing up the mind at this stage with unassimilated fact which is to be digested at some future time. After speaking of the mechanical part of arithmetic involved in computation, and the more strictly analytic or logical part which consists in applying the processes of computation to given problems, it says: "During these first years the pupil should commit to memory the multiplication table and the tables in denominate numbers. He should learn to add accurately long columns of figures, to subtract and divide without error. . . . I do not mean, of course, to devote these years exclusively to abstract work, but to make that predominate. . . . Just here I wish to say that in the solution of every problem there are only two essentials: knowing what to do and how to do it. Why it is so done is a pleasure to know, but by no means an essential." The intimation seems to be that the mechanical parts should be mechanically memorized without bothering much as to the "why." It seems to me that even in the first steps in arithmetic nothing can be more fatal to later sound and rapid progress than by our methods to give the pupil a fair chance to conclude that it is a pleasure, "but by no means an essential," to know the *why* of his work. Reference to an arithmetic which is used in at least one school for the deaf will make clear the import of the above-quoted statements. It follows the old arrangement of numeration, and the four tables in succession with practice work on numbers up to millions, then denominate numbers and fractions treated separately and case by case. Probably a majority

of the profession agree with the conclusions quoted and follow this general order. It almost invariably lays great stress upon the different successive mechanical processes, summed up by abstract rules, worded or unworded, which are shown to apply to each "case;" and therefore fails to hold under a constant and steady light the one fundamental principle that all arithmetical work is some form of addition or subtraction with various concurrent transformations of parts to render these processes applicable.

If the main argument of the previous paper is sound—namely, that as far as possible the development of the idea through experience should precede and lead up to the symbolic representation of it by the child—then, to teach a pupil something of quantitative reasoning, we should first require him to experiment a great deal with various modes of estimating and comparing actual quantities, as by the numbering of objects, and the measurement of distance, bulk, weight, etc., by different standard units. I would begin with denominate tables as soon as numbers up to fifty had been mastered, and base a great deal of concrete practice work upon these tables as higher numbers are taken up. Only such tables or parts of tables as are perfectly within the comprehension of the pupil are to be considered. Each year the subject is reviewed and more difficult tables and applications taken up. In exactly the same way, the idea of fractions is taught very early in connection with division, then reviewed each term in more and more complex relations—first fractions to sixths, next to twelfths or twenty-fourths, and then decimals to thousandths. Each step is demonstrated objectively by both teacher and pupil, and attention is continually focused upon the fundamental principle stated above by the constant use of the equation both in concrete and abstract form. In this way the child is familiarized very early with the one primary instrument of all mathematical reasoning. The gradient

steps of progress depend upon the possible degrees of the simplification of processes, and not upon the usual arbitrary or logical divisions of the subject. Practical tests in the school-room soon convinced me that this method of constantly considering the whole subjects of arithmetic from the point of view of the child's capabilities of conception insures a great saving of time and a much more complete mastery of principles than is otherwise possible. Always the ability to illustrate objectively, by drawing or otherwise, each process taken up should be the final test of understanding, and every effort should be made to have each pupil reach any required induction through his own measurements, and, if necessary, hundreds of illustrative diagrams.

In giving the greatest possible reality to the subject it will be found a helpful exercise to have pupils estimate the value of various articles which they use, beginning with the first cost of production, and tracing the raw material through depots, factories, custom-houses, and wholesale and retail stores. In this way we may approach from the concrete practical side many of the important facts of production, transportation, and distribution, the principles of taxation, the progress of invention, etc. Other valuable series of problems may be given by comparing geographic conditions of temperature and rainfall, or of production, wealth, and population, with local conditions familiar to the pupil's experience, and illustrating the comparisons by broad lines drawn to scale in the proper proportions. In this way pupils can be given more or less definite standards of comparison with which to associate, and by which to weigh and realize clearly, facts learned in other studies or general reading. It is obviously impossible for text-books to give satisfactory problems of this kind. With a supply of blank business forms, check-books, paper money, etc., various transactions in wholesale, retail, banking, and real estate business may

be conducted, the teacher being the principal stockholder and the director of all corporations.

Here, as in language teaching, the most essential point to be observed is the proper subordination and adaptation of this varied subject-matter to a systematic general plan according to definite purposes and clearly perceived principles.

If by a wise use of such devices we can constantly bring the newly acquired ideas of the pupil into close and accurate association with his ever-growing body of individual sense-experience, there will result a stronger and saner mental product than is possible through abstract teaching and a slavish following of text-books. On the other hand, there will be less reckless reasoning out of all relation to carefully observed fact, and less parading of the language of history, physiology, and physics, with a corresponding mental imagery so vague and shadowy that little of it remains after the first or second anniversary of graduation.

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THEN AND NOW.*

THE Maine School for the Deaf is a sufficient justification, to any one who has watched its work, of the method of teaching which it exemplifies. It is very interesting to compare the results of the present "Combined System" and the former "Pure Oral Method," and this can be the more easily done since several of the teachers labored with no less zeal and devotion to carry out the old method in the earlier days of the School.

*The writer of this article lives just across the street from the Maine School and has watched its progress with close interest from the beginning.

To judge of the success of a method, it is necessary to understand clearly the objects to be attained by it. It may be said of all education that its purpose is to develop the mind, but in the case of deaf children the expression has a peculiar force. The child who never has had hearing, or who has lost it at an early age, is necessarily ignorant, no matter how keen his mental powers may be in reality, of many things besides language which a hearing child of the same age has learned unconsciously, and the process of development must begin farther back. The imperative need is a ready means of communication between teacher and pupil.

There are three modes of conveying ideas to the deaf child: signs, words spelled either by writing or by the manual alphabet, and spoken language. The sign-language has the great disadvantage of being unintelligible, except in its simplest forms, to those who have not studied it with care, and those who use it must therefore communicate with hearing persons by the inconvenient, and sometimes impossible, mode of writing. But for teacher and scholar it furnishes a ready means of communication before language is understood, and an invaluable help in its acquisition. The manual alphabet is open to the objection of not being generally known, but it can be very quickly and easily learned, and can be used where writing is impracticable.

But if the child is to read words, says the oralist, why not read them altogether from the lips, instead of from the hand, and so acquire the power of conversing with any one? That the art of lip-reading should be taught as far as practicable, the advocates of the Combined System firmly believe, but that it should be made the chief means of instruction seems to them, on account of the slow progress which its extreme difficulty involves, a sacrifice of the essential to the non-essential, the important point being not so much the ease with which the child can express himself, as the kind of self to be expressed.

The difficulty of lip-reading arises from the fact that, while the vocal organs take a different position for each sound, these differences are not always visible externally. Let any one who wishes to appreciate the condition of a child taught chiefly by the lips imagine himself to possess a very small French vocabulary, and then to be required to read a book in that language, in which the same character may stand for either *b*, *m*, or *p*, while another represents indifferently *d*, *n*, or *t*, and *c* and *g* are often omitted altogether. This is a fair parallel when words are spoken clearly and distinctly, but in ordinary, careless conversation additional difficulties arise, which may be understood by supposing that many letters are badly printed, and whole words occasionally blurred.

Such being, briefly stated, the three modes of communication with the deaf child, the advocates of the Combined System believe that, with a task of such difficulty and importance to be accomplished, the wise course is to use each and all as occasion demands, lest by rejecting any they run the risk of sacrificing the highest good of the child to a theory.

If this method is really superior, the proof should appear in its results. How, then, does the Maine School, judged in both cases by the average scholar, not by special cases, compare with its Pure Oral predecessor?

The first difference to be noticed is in the *morale* of the school. The teachers agree in saying that the children are wonderfully well behaved, and that in spite of the large number brought together, some seventy, of all ages, discipline is easily maintained. Formerly, with half as many pupils, a very different state of things prevailed. There are of course various reasons for this, but one which contributes very largely toward the result is that the readiness with which ideas can be given to the children renders it much easier to inculcate good morals and manners, while their increased general development makes them far more amenable to reason.

Another difference to be noticed is that the listlessness, not merely in study, but in play, that surprised the visitor to the Oral School, has entirely disappeared under the new system. Formerly, while there were marked exceptions, the general impression was of a lack of vitality. For example, at one time a number of the boys were allowed to spend their recess in a room in the school building which was provided with hand-swings, parallel bars, and other gymnastic appliances dear to the heart of every genuine boy. These little fellows enjoyed it for a few days, and then went back to their old habit of spending their recess in talk—always, be it understood, in signs, for the younger children, and the older ones with few exceptions, used among themselves nothing but an imperfect and inaccurate system of signs, which had gradually grown up in the school. The want of a playground seemed to the visitor one of the many serious objections to the former quarters of the school, but when it was transferred to the present building very few of the children availed themselves of the chance for play offered by the large yard, which now is daily filled by a merry company of urchins, of whom listlessness, in work or play, is the last quality that could be affirmed. For this change also there are various reasons, best expressed in brief by saying that more normal conditions have produced the natural result of more normal characters.

It is interesting to notice that, while speech and lip-reading are made so much less prominent in the school programme, the average excellence of performance in that respect is equal, if not superior, to that attained by the former system. In this, as in other directions, the children are far better fitted to profit by their lessons than where the constant struggle to understand left them, far too often, tired and cross.

The Pure Oral method does great injustice to one class of children, the naturally poor lip-readers, who are often

equal, or even superior, in general mental power to their more fortunate companions. Lip-reading requires quickness and keenness of observation, and a mind able to work rapidly—qualities often lacking in children whose memory and reasoning powers are of a high order. Under the Combined System they can be met on their own ground, and their faculties can be adequately developed.

Among deaf children there will always be found an unusual proportion who are more or less deficient mentally, either because their deafness is only one phase of a generally imperfect organization, or because their education has begun too late. No class in the Maine School is more interesting than one made up of these backward pupils, to whom the Oral method is acknowledged, even by many of its most zealous advocates, to be wholly unsuited. No effort is made to teach them to speak, but some of them use the manual alphabet with great ease, and their command of language, as shown by the little stories of the day's doings which they write for their teacher, actually equals that of children of average ability who had been under instruction for the same length of time in the former school.

It would be interesting to describe some of the other features of the school—the class in Manual Training, where the boys make all manner of pretty and useful things, and which they enjoy so much that if one of them is idle or inattentive, it is only necessary to suggest giving his place to some one not yet admitted to the class; the cobbler's bench, made by the boys themselves, where the shoes for seventy pairs of active feet are mended—and well mended—by a busy young cobbler; the sewing classes, where the girls learn to make and mend their own and the boys' clothes, and numerous articles required in the household; the lessons in various domestic occupations, which are fitting them to employ themselves usefully and happily.

at home. But all these, and many more pleasant things, may be seen by the visitor, and it is safe to predict that the first visit will not be the last, so interesting is it to see what wise methods, carried out with skill and devotion, can accomplish for lives which would otherwise be deprived of so large a share of activity and happiness.

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A SUGGESTION TO THE FIFTEENTH CONVENTION.

In the last issue of the *Annals* I ventured to offer some thoughts regarding a possible "Science of Deaf-Mute Education," but made no definite suggestion. Since those paragraphs were written, however, further reflection has tended steadily to convince me that the time for action in that direction has arrived. At the same time a very natural and practical plan of procedure also has suggested itself. The nature of this plan and the near approach of the Fifteenth Convention have impelled me to risk a practical suggestion as a kind of supplement to my recent paragraphs on the above theme.

Perhaps the matter in hand cannot be better introduced than by a certain quotation. A writer in the autumn number of *The Little Deaf Child* criticises a statement of mine in a former article, entitled "The Modern Moloch," thus: "Truly this is an extreme statement, and one which cannot be accepted unless followed by others which bear it out and give it the advantage of a thorough proving. If the writer has made a careful and statistical examination of the oral system as compared with the combined system, and if in the course of such an examination he has discovered that pupils trained by the oral system are mentally, morally, and physically inferior to those

who have not been so trained ; if he has personally visited the oral schools of Germany and France, and those of America, which have cheerfully accepted the oral system, and have given it a thorough and efficient test ; if he has thoroughly tested also the work which is being done in private schools and in public day-schools in England and America ; if he has looked carefully into the subject-matter taught in such schools, and has carefully compared school curriculums, he will no doubt be able to give valuable data which shall throw definite light upon the subject." Now, aside from several minor implications, I wish to say frankly and decisively of this general criticism that it is absolutely just and well founded.

To the extent of my failure to accomplish the above-enumerated investigations thoroughly and fully, any statements of mine regarding the oral system were necessarily *unscientific*. But, observe, the criticism cuts both ways, and stands true of all who have made statements in like manner without having effected full investigations, as above described. Am I or is any other single individual, however, to be blamed for this failure ? Not at all, for the simple reason that it is well-nigh impossible for any single person to accomplish such a complete scientific inquiry. It must be for our profession *as an organized whole* to undertake and carry out that work.

I have employed the above citation because it furnishes a pointed illustration, entirely at my own expense, of a truth which needs to be driven home with all possible emphasis. It is not a very palatable one, but only too easily verified. I refer to the essential weakness of four-fifths of all our professional controversy, namely, its dependence upon the appeal to "experience," as if experience was never warped from the truth by prejudice and other influences ; its resort to mere official authority, whose assertions are accepted without the backing of a single definite fact ; its constant use of mere arguments "from

the study," unsubstantiated by any fruits of real research. Some may doubt the reality of this, but, if so, let them not sit in idle ease and deny it off-hand, for in that case they would themselves become clear illustrations of its truth.

Instead, let them go and read all the past issues of the *Annals*, the "Proceedings" of past conventions, and other similar literature, and they will discover an astonishing repetition of old arguments and opinions from decade to decade, constant balancing again and again of fresh personal assertions, fresh appeals to the authority of experience, sweeping generalizations from one or two "cases" only, and all the rest. Not entirely inapplicable would be Hallam's words descriptive of the scholastics: "The scholastic mode of dispute, admitting of no termination, and producing no conviction, was the sure cause of skepticism. . . . What John of Salisbury observes of the Parisian dialecticians, that after several years' absence he found them not a step advanced, but still engaged in urging and parrying the same arguments, was equally applicable to the period of centuries. After three or four hundred years the scholastics had not untied a single knot, nor added one unequivocal truth to the domain of philosophy." All this would be too severe, of course, as applied to our own past controversies, for we have certainly made considerable advance, but there is unquestionably sufficient parallelism to mortify us greatly.

True, we have ample reason and excuse for this state of things in the past. A great thinker, J. S. Mill, says: "Practice precedes science; systematic inquiry into the modes of action of the powers of nature is the tardy product of a long course of efforts to use those powers for practical ends." Precisely! Just so has it been in our own sphere. But surely we have now made sufficient progress in "practice" to take a step forward and attain the level of science, bringing to an end those persistent

controversies which seem to "admit of no termination, and produce no conviction." Let us here proceed to consider, at any rate, one plan by which we might successfully, perhaps, accomplish such an aim.

In the published "Proceedings of the Fourteenth Convention," turn to pages 217-221, where you will find the text of the Constitution adopted on that occasion. Under Article II you find that the objects of the Convention shall be to secure harmonious union, to provide for meetings from time to time, and "to promote by the publication of reports, essays, and other writings the education of the deaf on the broadest, most advanced, and practical lines," etc. Very good, so far. But let us now turn aside for a moment to the consideration of certain other celebrated organizations, in the observation of which we may gain some suggestive points.

Every one has heard of the British Association for the Advancement of Science and of its American contemporary, as well as of other famous scientific societies, such as the Royal Astronomical Society, the *Congrès Médical International*, etc. For what objects do these societies exist? Investigating this matter, I was much struck with the parallelism in this respect between these societies and our own Convention, excepting in one important particular.

In the first place, each of these societies aims (and here I may partially quote the exact words of our own Constitution) "to secure the harmonious union in one organization of all persons actually engaged in" prosecuting scientific research in their several spheres. In the second place, each society aims "to provide for . . . meetings from time to time with a view of affording opportunities for a free interchange of views concerning" the discoveries and theories of scientific explorers. Finally, each society seeks "to promote by the publication of reports, essays, and other writings" the develop-

ment of scientific knowledge. It is in the difference between the respective meanings of "education" and of "science" that the parallelism fails to hold. Nevertheless, is it not a striking and suggestive one as far as it goes?

We labor in a certain sphere of activity, wherein certain fundamental disputes continue to persist; wherein many points of importance remain very obscure, and wherein, therefore, the accurate knowledge born of truly scientific research is emphatically needed. Not merely as educators of the deaf, during the period they spend within our school doors, but as friends anxious to advance their social status in every way, it is of vital significance for us to obtain sound, reliable knowledge regarding the sources of deafness, the influences that increase or decrease it, the various types or degrees of it, and especially the educational methods best fitted to prepare the deaf for a happy, successful discharge of all the functions of a social being. But you may write it large upon your tablets that we can never attain that goal without a thorough, patient exploration of every nook and corner of our special field, collecting systematically all the results, and from them evolving a scientific body of indisputable truths. This is the Baconian method, so marvellously fruitful of results wherever tried.

But how are we to go about this business? No Society for the Advancement of Scientific Knowledge regarding the Deaf as yet exists anywhere in the world. This means that no central agency has yet been established expressly to stimulate original investigation, to map out lines of inquiry, to co-ordinate scattered results, and thus render isolated individual labors effective for the steady advancement of our knowledge as a whole. There is nothing to kindle enthusiasm and arouse definite co-operative efforts among our widely scattered workers. And should statistics, test results, accounts of various observations,

etc., be forthcoming at the present time, there is no express agency, with a fund behind it, to publish the same in available form for all students in our profession.

Should, then, a special scientific society be formed for the furtherance of such an object? Not by any means, it seems to me. We have enough of organizations already. To add a new one would only distract and dissipate our forces, instead of economizing them by concentration. Have we not already at hand two organizations which, by sympathetic co-operation, would cover nineteen-twentieths of the English-speaking world at least, namely, The Convention of American Instructors of the Deaf and The (British) National Association of Teachers of the Deaf?

In the light of all the foregoing, then, surely it is a suggestion worth considering, at least, that the coming Convention at Columbus should do something like the following:

1. Take steps to secure an amendment of its Constitution, under Article II, such as shall add to the objects already enumerated a further one, explicitly stating that the Convention seeks to encourage scientific research among its members, within the limits of its sphere, with a view to developing scientific knowledge of all matters comprised therein; and

2. Whether the above should be thought necessary to the main purpose or not, at any rate organize a special committee or scientific section which shall take in hand the above work, arranging for investigations at local centres along definite lines, inviting and encouraging individuals to undertake such inquiries, collecting and preserving the results, and reporting the same to successive Conventions in the future or securing publication of them in available form for all interested therein.

By doing something like this, the Convention would simply assume in explicit terms and by effective arrangement the functions of a scientific society, so far as con-

cerns our own field of knowledge. We certainly need some such central agency for the purposes already pointed out. That inestimable gain would soon appear as the outcome of such a definite move on our part scarcely admits of dispute.

With all these thoughts in mind, look forward to what is coming. On July 28th next there will meet in Columbus probably the largest assembly of the most successful educators of the deaf the world has ever seen. It will be our last great meeting within the century now swiftly ebbing away—a century no less remarkable in the annals of deaf-mute education than in all other departments of human endeavor. There will be present white-haired veterans, who have burned low the fires of life in the service of our cause, and again those destined to sustain and carry forward the good work far into the veiled years of the twentieth century—that coming time before which the thoughtful man of to-day bows his head almost reverently, while his heart beats quicker with the sense of coming achievements, great and beneficent, for the human race. What distinctive step in the line of manifest destiny could this great gathering of our forces undertake more significant and promising than to declare explicitly its purpose to begin the uplifting of our field of labor to the level of an empirical Science, creating simultaneously the necessary special organ for performing that function in our body politic?

It is a great opportunity that we shall have. The time seems fully ripe for the movement herein definitely suggested. Teachers and friends of the deaf, is it not time that the wearisome controversies that rend our ranks should be relegated to past history in the only way by which it can ever be done, namely, by an honest, patient application of the scientific method by ourselves to our own sphere of activity? In short, is not the proposition herein suggested, taken up and executed in some form or

other, simply reasonable, timely, and desirable? If so, let us carry it out forthwith. If not, make sure of the reasons against it, and come to the Convention prepared to urge them in open discussion.

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Principal of the Ulster Institution, Belfast, Ireland.

THE ELEVENTH CENSUS.—I.

THANKS largely to the earnest efforts of the Committee appointed by the Sixth Conference of Principals and Superintendents of American Schools for the Deaf, the enumeration of the deaf in the Eleventh Census of the United States, taken in 1890, was an improvement in some respects upon all previous censuses. The classification of the deaf made in the Tenth Census, so objectionable to them and their friends, by which they were grouped with paupers and criminals under the general head of "the defective, dependent, and delinquent classes," was discontinued; the inquiries of the census-takers were not limited to the "deaf and dumb," but were extended to all the deaf; the questions asked were more numerous and minute than ever before, and included some new details of considerable importance.

The results of the census of the deaf are published in the same volume with those of the blind, the feeble-minded, and the insane, but the several classes are separated as much as possible from one another. The portion relating exclusively to the deaf includes 75 tables giving a great variety of information of more or less value, 28 illustrative cartograms and diagrams, and a report of 34 large quarto pages by Dr. John S. Billings, the expert special agent of the Census Office for Vital and Social Statistics, who had charge of these special classes. The

tables relating to the deaf are more numerous than those relating to any other class.

While instructors of the deaf may congratulate themselves that so much was accomplished in accordance with their requests, it is a matter for regret that the recommendations of their Committee were not fully carried out. Several of the inquiries that the Committee suggested were omitted, and of the 63 questions that were in the schedule, all of which were, or ought to have been, asked by the enumerators concerning every deaf person returned, there were at least 35 questions, including some that were regarded by the Committee as especially important, of which no results whatever appear in the tables or report.

Though the Census Office followed the recommendation of the Committee in making inquiries concerning all the deaf, the results are not published in the form that the Committee desired and expected. Instead of giving the returns concerning the whole body of the deaf as one class, together with the age at which deafness occurred and other details which would have enabled us to determine readily those of them in whom as instructors of the deaf we are especially interested, the Office attempted to separate the "deaf and dumb" from the "deaf but not dumb," giving separate tables for these two classes. Probably this course was better than that of former censuses, which enumerated only the "deaf and dumb," and left the determination of the persons constituting this class largely to the enumerators, many of whom were men of little education or intelligence; but the results of the attempt to separate the two classes in the Census Office are not altogether satisfactory. Of the "deaf and dumb" the total number reported is 40,592; of the "deaf but not dumb," 80,616. Of the latter, 15,981 are said to have lost their hearing under twenty years of age. If the returns concerning these persons are correct, they probably belong to the class known as semi-mutes, or are deaf-

muters who have been taught to speak in our schools for the deaf; 145 of them were reported as congenitally deaf, and 721 were pupils in schools for the deaf on the day the Census was taken. 55,370 persons "deaf but not dumb" are said to have lost their hearing when they were twenty years of age and over; with these we, as instructors of the deaf, have no particular concern. On the other hand, among those returned as "deaf and dumb" are 4,939 persons whose deafness is said to have occurred when they were 5 years of age and over; 1,677 of these are said to have been ten years of age and over when their hearing was lost, and 358 twenty years of age and over. With respect to most of these persons, especially those who are said to have lost their hearing after they were ten years of age, there must either be an error in the returns of the ages at which hearing was lost or in their classification as "deaf and dumb." On the whole, for practical purposes, the arbitrary classification adopted in the census of 1880, which included among the "deaf and dumb" all of the deaf who lost their hearing before they were sixteen years old and excluded those whose deafness occurred at a later age, seems preferable to the attempt of the census of 1890 to divide the deaf into two classes.

Among the instructions given to the enumerators concerning the enrollment of the deaf were the following: "The questions on this schedule are to be asked with regard to every person who is too deaf to be taught in ordinary schools for hearing persons, or who cannot hear conversation carried on in a loud tone of voice. If the person is merely 'hard of hearing,' or if there is doubt whether the deafness is sufficient to cause the disability above named, the person should not be entered on this schedule." Of course it is impossible to say how faithfully these instructions were observed. The great disparities in the numbers returned from different parts of

the country indicate that some enumerators gave a much wider latitude to the interpretation of them than did others. For instance, the proportion of persons "deaf but not dumb" returned from Vermont (3,207 per million of the total population) was more than five times as great as the proportion of those returned from Georgia (606 per million), and the proportion returned from the States of the North Atlantic division (1,620 per million) was nearly twice as great as that returned from the Southern States (860 per million). Was the former too high or was the latter too low? The statement made at Flint by Dr. Job Williams, Principal of the Hartford School, shows that in one instance at least the instructions to the enumerators above quoted were entirely disregarded and persons were entered on the schedule for the deaf who ought not to have been.* So long as the Census is taken, as it has been hitherto, by enumerators appointed for the occasion, without any previous training or experience and

* At the Fourteenth Convention of American Instructors of the Deaf, held at Flint, Mich., in 1895, Dr. Williams said: "When the Census report was received I found the names of eleven children of school age living in Hartford reported as deaf. One of these I know about, but I had not heard of the other. I thought it strange that there were so many deaf children here that I knew nothing about, so I proceeded to investigate. At the first place where I called I found a little girl playing near the house and inquired for the girl reported as deaf. She said that was her name. Just then the mother appeared, and when I stated my errand to her, she said, 'Oh! that is the child. Ordinarily she hears as well as anybody, but when she takes cold she is a little deaf from catarrh.' The next case had just graduated from the public school and had but slight deafness, if any. The next was a boy troubled with catarrh and at times somewhat deaf, but was making his grade regularly in the public school, and so on. At the last place I inquired of the gray-haired man who answered the door-bell for a girl of the name given, 'That is my grandchild,' said he; 'she lives on the next corner.' 'Is she deaf?' 'Oh no, she is only six months old.' 'But the census report gives a girl of that name deaf and living here.' 'Oh, well, that is my wife. She has had to use an ear-trumpet for some years.' I found one genuine case, and one I could not find at all. So much for the eleven cases on the list furnished me by the Census Bureau."

the white, but it seems fair to conclude that the ratio of deaf-mutism is decidedly greater among the white race than it is among the colored race."

The number of deaf-mutes in each million of the population, as shown by the above table, is greater than the corresponding number shown by the census of 1880 in Maine, New Hampshire, Vermont, Massachusetts, New Jersey, Delaware, Maryland, Virginia, South Carolina, Florida, Ohio, Michigan, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Kansas, Texas, Arkansas, Montana, Colorado, Arizona, Nevada, Idaho, and Washington; it is less than in 1880 in Rhode Island, Connecticut, New York, Pennsylvania, District of Columbia, West Virginia, North Carolina, Georgia, Indiana, Illinois, Wisconsin, Nebraska, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Wyoming, New Mexico, Utah, Oregon, and California. The greatest apparent increase in the ratio was in Maine (247 per million); the greatest apparent decrease was in the District of Columbia (413 per million). For the whole United States the apparent decrease was 27 per million. However, in view of the different way in which the classification of the "deaf and dumb" was made in the two censuses, and of the fact that over 4 per cent. of those returned in 1880 were reported by physicians who made no corresponding returns in 1890, a comparison of the two censuses in this respect has little value. In the intermediate census which three States, Michigan, Rhode Island, and Massachusetts, took in 1885, the number of deaf-mutes returned and the ratio to the whole population were considerably less than in either the United States census of 1880 or in that of 1890. No doubt the extra pay allowed to enumerators by the United States for the statistics concerning the deaf, though it was far too small really to compensate for the additional labor involved in making faithful returns, was an incentive to greater fulness of numbers; it may

possibly, in the case of unscrupulous enumerators, have even been a temptation to greater fulness than was justified by the facts. But, inasmuch as the proportion of deaf-mutes to the whole population, as shown by the census returns of the United States, is below the average of European countries, it is probable that the omissions were more numerous than the erroneous additions.

E. A. F.

[TO BE CONTINUED.]

AMERICAN WARS.

EVERY school teaches history more or less, and children find it an interesting study when presented in a proper manner. In a former volume of the *Annals* (xl, 269-273) will be found an article on "The Colonial Period of American History," with a chart and cards, by Mr. D. F. Bangs, Superintendent of the North Dakota School for the Deaf, the use of which and the success obtained therefrom have suggested the accompanying table of American Wars. It is prepared on the same plan, care being taken to make the accounts of the various wars as uniform as possible, and also to show their connection where any exists. The facts have been gathered from various sources—text-books in history, readers, books of reference, newspaper clippings, and pamphlets. Government reports from the Indian Bureau have been especially helpful regarding the Indian wars. From a glance at the table it would seem that history is nothing but a record of wars, but it is really not so. That is only one subject selected from a host of others. I give outlines of those wars which are more or less mentioned in almost every text-book, and also of those which should be fully studied and understood by older pupils. Other wars,



The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the integrity of the financial system and for the ability to detect and prevent fraud. The document also outlines the responsibilities of individuals involved in the process, including the need for transparency and accountability.

The second part of the document provides a detailed overview of the various methods used to collect and analyze data. It describes the different types of data sources, such as surveys, interviews, and focus groups, and explains how this information is used to identify trends and patterns. The document also discusses the challenges associated with data collection and analysis, such as ensuring the reliability and validity of the data.

The third part of the document focuses on the development of effective communication strategies. It discusses the importance of clear and concise communication and provides guidelines for writing reports and presentations. The document also outlines the different channels through which information can be disseminated, such as newsletters, websites, and social media.

The fourth part of the document discusses the importance of ongoing evaluation and improvement. It emphasizes that the effectiveness of any program or initiative can only be determined through regular assessment and feedback. The document also provides guidelines for conducting evaluations and for using the results to make improvements.

The fifth part of the document discusses the importance of collaboration and partnership. It emphasizes that achieving the goals of the organization requires the active participation and support of all stakeholders. The document also outlines the different ways in which the organization can build and maintain strong relationships with its partners, including through joint ventures, alliances, and networks.

The sixth part of the document discusses the importance of innovation and creativity. It emphasizes that the organization must be able to adapt to changing circumstances and to develop new solutions to emerging challenges. The document also provides guidelines for fostering a culture of innovation and for encouraging creative thinking among employees.

The seventh part of the document discusses the importance of risk management. It emphasizes that the organization must be able to identify and assess potential risks and to develop strategies to mitigate them. The document also outlines the different types of risks, such as financial, operational, and reputational, and provides guidelines for managing each type of risk.

The eighth part of the document discusses the importance of sustainability. It emphasizes that the organization must be able to balance its economic, social, and environmental responsibilities. The document also outlines the different ways in which the organization can promote sustainability, such as through green initiatives, social responsibility programs, and community engagement.

Name and Date.	Causes.	Chief Events.	Results.	Remarks.
1. Pequot War. 1637.	1. Fate of Captain Oldham. 2. Indian atrocities.	The Indian wigwams at Mystic were burned.	The Pequot nation was almost extinguished. Part of the survivors surrendered. Another part, with Chief Sassacus, joined the Mohawks and Narragansetts. They tried to enlist the Mohawks and Narragansetts on their side and broke the friendship which existed between the colonists and the Mohawks and Narragansetts before the war. Almost all of the tribes united when King Philip's War broke out.	The colonists started out with ninety men, but only seventy-seven of them attacked the fort. They had two killed and sixteen wounded, while the Indians lost seventy wigwams and between five hundred and six hundred men.
2. King Philip's War. 1675-'6.	1. Prosperity and encroachment of the whites. 2. Unjust treatment of the Indians.	1. Swansea, Hadley, Deerfield, and other towns were burned. 2. The swamp fight. 3. Fate of King Philip and Canonchet.	1. The power of the Indians was broken and the colonies never again felt afraid of the Indians. 2. The greater part of the survivors joined eastern tribes or those of Canada. They became hostile again at a subsequent epoch and joined the French in the Seven Years' War.	1. The colonies sacrificed more than six hundred lives and half a million dollars. 2. The Indian tribes which took part in this war were the Wampanoags, Narragansetts, Nipmuchs, and other tribes living in New England.
3. Bacon's Rebellion. 1676.	Rear—1. The government gradually usurped the power of the people. 2. The assembly continued to sit without change. 3. The officers extended their terms indefinitely.	1. Campaign of Bacon against the Indians. 2. The "White Apron Brigade." 3. Burning of Jamestown.	1. Twenty-two of Bacon's followers were hung. 2. Berkeley was recalled. 3. Jamestown was never rebuilt. 4. Oppression of the colonists was increased. 5. Williamsburg became the capital.	

Name and Date.	Causes.	Chief Events.	Results.	Remarks.
4. King William's War. 1689-'97.	<p>4. Suffrage was restricted by a property qualification and the people were heavily taxed.</p> <p>5. There was dissension because the king had given Virginia to Lords Arlington and Culpeper.</p> <p>IMMEDIATE—(1) Indian depredations. (2) Delay of Governor Berkeley to help the colonists.</p>		<p>6. After that time there was no more trouble with the Indians in Virginia.</p> <p>7. The colony never forgot the meaning of the Bacon Rebellion and its protest against tyrannical government. Just a century later their descendants met at Williamsburg and declared themselves independent of Great Britain.</p>	
	<p>1. War in Europe between the mother countries gave occasion for a quarrel in America for their respective colonies.</p> <p>2. King William of England was a great enemy of Louis XIV of France, who supported the dethroned Stuarts.</p> <p>3. Conflicting claims to territory caused the trouble in America.</p>	<p>1. Indian ravages, especially in New York.</p> <p>2. Burning of Schenectady.</p> <p>3. Expedition against Montreal and Quebec.</p> <p>4. Capture of Port Royal, Acadia.</p>	<p>1. The treaty of Ryswick brought the war to an end.</p> <p>2. Colonial territory was unchanged.</p> <p>3. Paper money was issued in Massachusetts.</p>	

5. Queen Anne's War. 1702-'13.	1. The king of Spain died without any direct heir. The succession affected the balance of power. On the death of James II. in 1701, his son was proclaimed king of England by France. This was a violation of the treaty of Ryswick. 2. Colonial claims to territory were still conflicting.	1. Indian ravages, mostly in New England. 2. Expedition against Quebec and Montreal. 3. Capture of Port Royal, Acadia.	By the treaty of Utrecht, England gained Acadia and the control of the fisheries near Newfoundland.
6. King George's War. 1744-'48.	1. The death of the king of Austria again imperiled the balance of power. France still adhered to the cause of the dethroned Stuarts. 2. Claims to colonial territory were unsettled.	1. Capture of Louisbourg. 2. Indian devastations.	The treaty of Aix-la-Chapelle left the colonial territory unchanged and all conquests were restored.
7. French and Indian War. 1754-'63.	REMOTE—Conflicting claims of the English, French and Indians to territory and the enmity between England and France. IMMEDIATE—(1) Quarrels between French and English traders and trappers. (2) Settlement of the Ohio Valley.	1. Washington was sent to the French fort—1753. 2. Braddock's defeat—1754. 3. Expeditions against Acadia, Forts Du Quesne, Niagara, and Ticonderoga—1755. 4. Campaign and siege of Louisbourg—1757 and 1758. 5. Siege of Quebec—1759. 6. Surrender of Montreal—1760.	1. Before the war France claimed a large part of the country, but after the war she did not own a single acre, except two small islands named Miquelon and St. Pierre. 2. The experience gained by the colonists in this war was valuable. They learned that they had a number of men capable of managing an army, and that they could govern them-

Name and Date.	Causes.	Chief Events.	Results.	Remarks.
8. Revolutionary War. 1775-'83.	<p>REMOTE—(1) The character of the colonists mentioned above in the remarks upon the French and Indian War.</p> <p>(2) Laws passed by parliament interfering with colonial trade and industries.</p> <p>(3) The character of the royal governors.</p> <p>IMMEDIATE — (1) The Stamp Act.</p> <p>(2) Taxation without representation.</p>	<p>7. The Cherokee War—1760.</p> <p>8. Pontiac's War—1763.</p>	<p>Great Britain acknowledged the independence of the United States by the treaty of Versailles.</p> <p>2. The boundaries of the United States were determined—north and east as at present; south, Florida; and west, the Mississippi.</p> <p>3. England granted Florida to Spain.</p> <p>4. The United States was in a distressed condition, heavily in debt and without a head.</p> <p>5. Business was at a standstill.</p> <p>6. The weaker States were afraid of the stronger ones. The stronger ones were jealous of each other.</p> <p>7. England felt very sore over the defeat and harassed the colonists in various ways—especially tried to ruin our commerce—until the war of 1812 broke out.</p>	<p>selves. The American generals won more victories than the British generals. The colonists became confident that they could fight as well as the British.</p> <p>3. The war created a bond of union among the colonies and engendered strife between England and the colonies.</p>
		<p>1. Battle of Lexington—April 19, 1775.</p> <p>2. Battle of Bunker Hill—June 17, 1775.</p> <p>3. Siege of Boston—1776.</p> <p>4. Battle of Long Island—August 27, 1776.</p> <p>5. Capture of the Hessians at Trenton—December 26, 1776.</p> <p>6. Battle of Princeton—January 3, 1777.</p> <p>7. Burgoyne's invasion and surrender—1777.</p> <p>8. Washington's Campaign in Pennsylvania—1777.</p> <p>9. Battle of Monmouth—June 28, 1778.</p> <p>10. Siege of Savannah—1779.</p>	<p>ACTS INFLUENCING:</p> <p>1. The Navigation Acts of 1631, 1651, 1660, and 1663.</p> <p>2. Internal trade was restricted—1673.</p> <p>3. The Board of Trade and Plantations was established—1696.</p> <p>4. Courts of Admiralty were established—1697.</p> <p>5. Exportation of hats was forbidden—1732.</p> <p>6. The Importation Act—1733.</p> <p>7. Erection of iron-works was forbidden—1750.</p> <p>8. The Stamp Act—1765.</p> <p>9. The Mutiny Act—1765.</p> <p>EVENTS INFLUENCING:</p> <p>1. Resolutions of Patrick Henry—1765.</p>	

<p>2. The Boston Massacre—1770. 3. The Boston Tea Party—1773. 4. The Boston Port Bill—1774.</p>	<p>11. Siege of Charleston—1780. 12. Exploits of Marion, Sumter, Lee, and Pickens—1780. 13. Treason of Arnold—1780. 14. Greene's Campaign in the south—1781. 15. Siege of Yorktown and surrender of Cornwallis—September 28—October 19, 1781.</p>		
	<p>1. Surrender of Captain Bainbridge and his crew—1803. 2. Burning of the Philadelphia by Decatur—1804. 3. Hamet and General Eaton formed a combination and defeated the Tripolitans—1805.</p>	<p>Piracy against American vessels on the Mediterranean Sea.</p>	<p>9. Tripolitan War. 1801-1806.</p>
<p>Tecumseh was absent in the south, trying to unite the other Indian tribes, at the time the battle took place. See what influence his acts had on the next two wars.</p>	<p>1. The Indians were defeated. 2. Some of the Indians joined the English in Canada. The belief that England secretly encouraged Tecumseh's plot increased the desire of the majority for a war with England.</p>	<p>The desire of the Indians to drive out the white settlers who were increasing in number west of the Alleghanies.</p>	<p>10. War with Tecumseh. 1811.</p>
<p>EVENTS INFLUENCING: 1. Firing upon the Chesapeake—1807. 2. Engagement between the</p>	<p>1. By the treaty of Ghent conquests were restored and England agreed to suppress the importation of slaves.</p>	<p>1. Imprisonment of American seamen. 2. American merchant vessels were seized by the</p>	<p>11. War of 1812. 1812-'15.</p>

Name and Date.	Causes.	Chief Events.	Results.	Remarks.
12. War with the Creeks. 1813-14.	British to get supplies for the British Army during the war between England and France.	3. Recovery of Michigan—1813. 4. Burning of Washington City—1814. 5. Battle of New Orleans—January 8, 1815.	2. England virtually yielded the right of search. 3. Superiority of the American navy was established. 4. Manufactories were built. 5. The United States was rendered more self-reliant. 6. Prestige of the United States was increased among the nations. 7. England and America have been fast friends ever since.	President and Little Belt—1811. 3. Battle of Tippecanoe—1811.
	The artful Tecumseh came among the Creeks and urged them to shake off the restraints of civilized life.	1. Massacre at Fort Mims—August 30, 1813. 2. Battle of Tallushatchee—November 3, 1813. 3. Battle of Talladega—November 7, 1813. 4. Battle of Hilabestown—November 11, 1813. 5. Battle of Antossee—November 29, 1813. 6. Battle of Ecanachaca (Holy Ground)—December 23, 1813. 7. Camp Defiance—January 27, 1814. 8. Tohopeka (Horseshoe Bend)—March 27, 1814.	The power of the Indians was completely destroyed and the greater part of their territory was surrendered to the United States.	Major Beasley, Generals Coffee, Jackson, and Claiborne commanded the American forces at different points.

13. War with Algiers. 1815.	Commencing anew the piracy of American vessels and capturing their crews.	Descent of Decatur upon the Algerines—May, 1815.	1. The Dey gave up the property and men which he had taken and emptied the United States from tribute. He paid six million dollars for previous damages. 2. Security against future wrongs was obtained.	General Jackson's conduct was discussed <i>pro</i> and <i>con</i> .
14. First Seminole War. 1818.	Piracy, robbery, and troubles of all sorts by the Indians and negroes in the south.	St. Mark's and Pensacola were seized.	1. The governor and other Spaniards were driven to Cuba. 2. Spain feared that trouble would break out again, so she sold Florida to the United States in 1819.	
15. Black Hawk War. 1832.	Encroachment upon the public lands in Illinois, Wisconsin and Iowa by the white people.	Battle of the Iowa—August 2, 1832.	1. The Indians were driven beyond the Mississippi. 2. Removal of the Indians encouraged emigration to the western states.	The Winnebagoes, Sacs, and Foxes were the tribes engaged in this war.
16. Second Seminole War. 1835-'42.	1. Attempt to reduce the Maroons or half-breeds to slavery. 2. Refusal of the Indians to be removed west of the Mississippi.	1. Tampa Bay—December 28, 1835. 2. Withlacooche—December 31, 1835, and February 29, 1836. 3. Fort Drane—August 21, 1836. 4. Wahoo Swamp—November 17-21, 1836. 5. Capture of Ocoola by Jessup—1837. 6. Villages in Florida, Georgia, and Alabama attacked by Indians. 7. Pelatikhaha—April 19, 1842.	The Indians were removed to Indian Territory.	The commanders of the Americans were Major Dade, Generals Clinch, Gaines, Call, and Jessup, Captain Ashby, Colonels Taylor and Worth, and a few others.

Name and Date.	Causes.	Chief Events.	Results.	Remarks.
17. Mexican War. 1846-48.	REAL — Annexation of Texas. IMMEDIATE — Boundary line between Mexico and Texas.	1. Battle of Fort Brown—April 23, 1846. 2. Battle of Buena Vista—February 22-23, 1846. 3. Capture of California by Fremont—1847. 4. Capture of New Mexico by Kearney—1847. 5. Battle of Vera Cruz—March 27, 1847. 6. Scott's march to the City of Mexico. 7. Capture of the City of Mexico—September 24, 1847.	1. By the treaty of Guadalupe Hidalgo the Rio Grande was made the boundary line between Mexico and Texas, and California and New Mexico were ceded to the United States. 2. It revived the question of slavery in American politics and finally led to the great Civil War.	The United States paid Mexico \$15,000,000 and assumed \$3,500,000 due Texan citizens.
18. Civil War. 1861-65.	REAL BUT REMOTE—(1) Different constructions of the constitution. (2) Different systems of labor in the north and the south. (3) Lack of intercourse between the north and the south. (4) Increase of territory. IMMEDIATE — Secession of the States.	1. Attack on Fort Sumter—April 15, 1861. 2. Battle of Bull Run—July 21, 1861. 3. Battle of Ball's Bluff—October 21, 1861. 4. Trent affair—November 8, 1861. 5. Capture of Forts Henry and Donelson—February 14-16, 1862. 6. Merrimac and Monitor—March 9, 1862. 7. Battle of Shiloh—April 6-7, 1862.	1. Freedom of the slaves was secured. 2. A great amount of property was destroyed. 3. The Union was preserved. 4. The question whether a State had a right to leave the Union or not was settled. 5. The States have been more strongly attached to each other since then than before.	1. For a long time manufacturing interests of New England came in conflict with the agricultural interests of the south, hence the bitter opposition of the south to the tariff. 2. Slavery was gradually given up in the north, partly because it was not profitable, while in the south it was exceedingly profitable. ACTS, EVENTS, PARTIES, AND WRITINGS INFLUENCING THE WAR: 1. Invention of the cotton-gin—1793.

8. Capture of New Orleans—April 25, 1862.
 9. Seven Days' Battles—June 26-July 1, 1862.
 10. Second Battle of Bull Run—August 30, 1862.
 11. Battle of Murfreesboro—December 31, 1862-January 2, 1863.
 12. Battle of Chancellorsville—May 2-3, 1863.
 13. Battle of Gettysburg—July 1-4, 1863.
 14. Siege of Vicksburg—May-July, 1863.
 15. Siege of Charleston—1863.
 16. Sherman's march to the sea—May 4 to December 26, 1864.
 17. Alabama and Kearsarge—June 14, 1864.
 18. Fall of Petersburg and Richmond—April 2-3, 1865.
 19. Surrender of Lee—April 9, 1865.
 20. Johnston's surrender—April 25, 1865.
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2. Fugitive Slave Laws—1793 and 1850.
 3. Protective tariff laws.
 4. Nullification Act in South Carolina—1832.
 5. New England Anti-Slavery Society organized—1832.
 6. Annexation of Texas—1845.
 7. Missouri Compromise—1850.
 8. Omnibus Bill—1850.
 9. Kansas-Nebraska Bill—1854.
 10. Dred Scott Decision—1857.
 11. Personal Liberty Bills—1857.
 12. John Brown's raid—1859.
 13. Anti-slavery papers, books, speeches.
 14. Uncle Tom's Cabin
 15. Anti-Slavery parties:
 - (a) Liberty Party—1840-'48.
 - (b) Free-Soil Party—1850-'56.
 - (c) Republican Party—1854.

In connection with the table, studies of special subjects may be arranged and successfully taught. Below are two taken from Sheldon's *American History* (a manual for teachers):

SPECIAL STUDY OF BRADDOCK'S DEFEAT.

I. Causes of the defeat.

1. Braddock's ignorance of the country.
2. His ignorance of the Indians' way of fighting.
3. Neglect of colonial advice.
4. Braddock's slow march hindered by wagons.
5. Different modes of fighting of opponents.
 - (a) Indians—in ambush, behind trees, rocks, etc.
 - (b) British—in line and in open field.

II. Parties engaged.

1. British regulars and British colonists.
2. French troops and Indians.

III. Result of Braddock's defeat.

1. Cruel treatment of British prisoners by the Indians.
2. Frontier left unprotected.
3. Indian murders of English pioneers.

SPECIAL STUDY OF THE SIEGE OF QUEBEC.

I. Importance of Quebec.

1. Gate of Canada.
2. Upper gate of Louisiana; lower gate, New Orleans.

II. Difficulties of siege.

1. On part of English.
 - (a) Precipice-fort of Quebec.
 - (b) Must take it in the enemy's country.
 - (c) Slow communication with home.
2. On part of French.
 - (a) Famine—lack of supplies.

III. Leaders.

1. English—Wolfe.
2. French—Montcalm.

IV. Result of siege of Quebec.

1. Final English success.
2. End of the war.
3. Both leaders were killed.

How and when the table should be taught is left to the discretion of the teacher. The manner of recitation should be varied.

Children get tired of one method. Questioning is usually the best method to find out whether children understand new lessons and to encourage original thinking. The topical method may be used as a review for the pupil to express his ideas in good language. If the pupils fail to find all the topics outlined in the histories or to grasp the language of the books, it is an excellent plan for the teacher to relate the facts in signs and then have the pupils reproduce them just as he would require them to reproduce a story from signs.

CHARLES D. SEATON,
*Instructor in the North Dakota School,
Devils Lake. North Dakota.*

THE FIFTEENTH MEETING OF THE CONVENTION
OF AMERICAN INSTRUCTORS OF
THE DEAF.

GALLAUDET COLLEGE,
KENDALL GREEN, NEAR WASHINGTON, D. C.,
May 20, 1898.

The Fifteenth Meeting of the Convention, as announced in the April number of the *Annals*, will be held in the Ohio Institution for the Deaf and Dumb, at Columbus, beginning on Thursday, July 28, 1898. The Convention will be called to order at 3 P. M.

260 *The Fifteenth Meeting of the Convention.*

Circulars concerning the reductions to be had in railroad fares have been sent to all the schools by Mr. J. W. Jones, Local Committee, with directions how to secure the benefit of the reductions. These directions should be carefully followed.

The following general outline of a programme has been arranged, subject to change by the Chairmen of Section Committees, in consultation with the Standing Executive Committee.

Thursday, July 28.

3 P. M. Convention called to order. Addresses of welcome and response.

7 P. M. Social reunion.

Friday, July 29.

9 A. M. Prayer. Calling of the roll of the Convention. Admission of members. Announcements. Annual address of the President.

2 P. M. Normal section. Papers and discussion.

7 P. M. Kindergarten section. Papers and discussion.

Saturday, July 30.

9 A. M. Prayer. Oral section. Papers and discussion.

7 P. M. Industrial section. Papers and discussion.

Sunday, July 31.

Services and meeting to be arranged later.

Monday, August 1.

9 A. M. Prayer. Normal section. Question box.

2 P. M. Oral section. Living exhibits. Discussion.

7 P. M. Oral section. Papers and discussion.

Tuesday, August 2.

9 A. M. Prayer. Normal section. Papers and discussion.

2 P. M. Auricular section. Papers, discussion, and living exhibits.

7 P. M. Report of the Standing Executive Committee and election of officers.

Wednesday, August 3.

9 A. M. Prayer. Normal section. Question box. Discussion.

2 P. M. Unappropriated.

7 P. M. Closing session of the Convention.

All persons who expect to attend the Convention are urged to acquaint Mr. J. W. Jones, Local Committee and Superintendent of the Ohio Institution, with the fact at as early a day as possible. A charge of seventy-five cents per day for board will be made, as at Flint, Michigan, in 1895.

The Standing Committee has pleasure in announcing that a number of European instructors have signified their intention of attending the Convention, and there is reason to hope that delegates may be present from Mexico and South America. The Section Committees have been actively at work, arranging for interesting programmes, and there is a good prospect of instructive meetings in all the departments of our work.

In behalf of the Standing Committee,

EDWARD M. GALLAUDET,
President of the Convention.

SCHOOL ITEMS.

Breslau (Prussia) Institution.—Mr. Heidsiek has been granted a leave of absence by the authorities of the Breslau Institution to enable him to visit American schools for the deaf. He expects to remain until after the meeting of the Convention at Columbus.

Calcutta (India) School.—The authorities of the Calcutta School have unanimously resolved to devote a portion of the subscriptions received from America to establish a scholarship to be called "The Gallaudet Scholarship" in honor of President Gallaudet.

Chefoo (China) School.—The school formerly conducted by Mrs. Annetta T. Mills at Tung Chow has been removed to Chefoo. Mrs. Mills has received a year's release from her direct mission work in order to place the school on a substantial basis. At the outset she depends chiefly upon friends in

America and Great Britain for assistance, but hopes that later the school will be supported by the Chinese. Contributions for this worthy object may be sent to Dr. Z. F. Westervelt, Principal of the Western New York Institution for Deaf-Mutes, Rochester, New York.

Chicago Day-Schools.—Mr. James E. Gallaher, an instructor in these schools, has published an interesting volume of 222 octavo pages containing portraits and character sketches of prominent deaf persons in America who are engaged in the higher pursuits of life, such as business and professional men and women, foremen and superintendents of industries, manufacturers, inventors, editors, publishers, authors, poets, clerks occupying important positions, etc. A majority of the persons named are teachers, but other professions and occupations are well represented. The sketches given number 147, and though the list is incomplete it serves well to illustrate the remarkable success in life attained by some of the graduates of our schools. The book is published by the author, 36 Howland Block, Chicago, Illinois, and the price is \$1.50.

Gallaudet College.—On Presentation Day, May 4, 1898, Mr. A. J. Eickhoff, Mr. R. L. Erd, Miss H. R. Leyder, Miss L. E. McGowan, Mr. P. N. Peterson, Mr. W. H. Rothert, Miss Clara Runck, Miss M. E. Stemple, Miss S. M. Young, and Mr. Robert Zahn, members of the senior class, were presented as candidates for the degree of Bachelor of Arts; Messrs. G. E. Fister and B. F. Jackson, also members of the senior class, for the degrees, respectively, of Bachelor of Science and Bachelor of Philosophy; Mr. C. E. White, B. A., a member of the normal class, for the degree of Master of Arts, and Mr. F. M. Driggs, Mr. E. S. Henne, Miss E. B. Pyle, and Miss L. C. Wing, also members of the normal class, for normal diplomas. The announcement was made of the conferring of the degree of Master of Arts in course upon Messrs. Henry Gross, O. H. Regensburg, and Harry Van Allen.

An interesting feature of the occasion was the unveiling of the bust of the Abbé de l'Épée, by the deaf artist Felix Plessis, mentioned in the last number of the *Annals* as having recently been presented by the deaf people of France to President

Gallaudet. The bust is of colossal size and bears this inscription :

*Offert à Edouard Miner Gallaudet
Défenseur du Système Combiné
Par les Sourds Muets de France
28 novembre 1897
Souscription Publique.*

Besides the orations and dissertations of members of the graduating class, addresses were delivered by President Gallaudet and Mr. Jules Cambon, the French ambassador, in connection with the unveiling of the bust, and an address was given to the graduating class by the Hon. David B. Henderson, Member of Congress from Iowa.

Iowa School.—A change has been made by the Legislature in the form of government of the Iowa school, all the State institutions being placed under a single board of control, as in Wisconsin, instead of having a separate board for each institution. Under the new order the entire responsibility for the conduct of the School, which for some years has been divided between the Superintendent and the Principal, is placed upon the Superintendent, but we are informed that no changes are proposed in the department of instruction.

Kentucky School.—The Kentucky School celebrated its seventy-fifth anniversary by appropriate exercises on the 11th of April last. Addresses were delivered by Mr. Augustus Rogers, Principal, the Rev. James Lane Allen, a member of the first separate Board of Commissioners, the Rev. F. J. Cheek, a son of a former teacher and a grandson of the first principal, and Mr. G. M. McClure, a present instructor. The School stands fourth in age among the American schools for the deaf, and was the first established west of the Alleghanies.

London Day-Schools.—The Rev. Dr. William Stainer, the founder of these schools, died of heart disease, at his home in London, April 9, 1898. Dr. Stainer was born in London in 1828, and began his work as a teacher of the deaf in the Old Kent Road Asylum at the age of fourteen. In 1854 he was appointed Superintendent of the Adult Deaf and Dumb

Society in Manchester, and while thus engaged he organized and conducted the Manchester Infant School, pursued a course of study, and was ordained as a clergyman. In 1872 he became chaplain of the London Royal Association and two years later opened the first day-school under the direction of the London School Board. He directed the work of the School Board Classes until 1896, and saw the number of pupils increase during that period from five to more than four hundred. He also established the "Stainer Homes" in London for homeless deaf children and those living at a distance from the schools, and was active in organizing the *Quarterly Review of Deaf-Mute Education* and the College of Teachers of the Deaf and Dumb. In 1887 he received the degree of L. H. D. from Gallaudet College. Dr. Elliott says of him in the *British Deaf Monthly* that to all his undertakings "he brought characteristic energy, industry, clearness of judgment, sympathy, and aptitude. He never spared himself; and he was always cheerful, apparently happy under the strain, and hopeful, with a load of cares, anxieties, and worries which would have overwhelmed one of a less sanguine disposition."

New York Institution for Improved Instruction.—Mr. Greene, after more than twenty-five years of service, has resigned the principalship of this Institution. He hopes to find a position, either in an Oral or a Combined-System school, where he can devote himself exclusively to teaching. In the meantime he will teach lip-reading to adult deaf persons, cure defects of speech of hearing persons, train teachers of articulation, etc. After the 30th of June his address will be South-ington, Connecticut.

ADVERTISEMENT.

WANTED, a position as teacher in a deaf-mute school by a semi-mute, a graduate of Gallaudet College, with 11 years' experience in teaching—4 years in a day-school, 2 years as a private tutor, and 5 years in the Illinois Institution. References given. Address "Teacher," care of the Editor of the *Annals*, Kendall Green, Washington, D. C.



CONVENTION OF AMERICAN INSTRUCTORS OF THE DEAF,

COLUMBUS, OHIO, JULY 25TH TO AUGUST 2D, 1898.

AMERICAN ANNALS OF THE DEAF.

VOL. XLIII, No. 5.

SEPTEMBER, 1898.

THE FIFTEENTH MEETING OF THE CONVENTION.

THE Fifteenth Meeting of the Convention of American Instructors of the Deaf, held at Columbus, Ohio, July 28 to August 2, 1898, was attended by a large gathering of teachers of the deaf in the United States and Canada, and several from England, Ireland, and Scotland.

The arrangements for the entertainment of the Convention at the Ohio Institution were admirable, and nothing was left undone by Mr. JONES and his assistants that could contribute to the welfare and comfort of the members.

Notwithstanding the heat of the weather the attendance upon the sessions was constant, and close attention was paid to the proceedings. The papers read were generally able and valuable; considerable time was allowed for discussion; diverse opinions were expressed with freedom and candor, but always with courtesy. The spirit of the Convention was enthusiastic, progressive, and harmonious.

In the evenings and during the recesses of the meetings there was abundant opportunity for pleasant social intercourse, for examining the interesting exhibits of school, kindergarten, mechanical, and art work contributed

by several schools, and for that informal exchange of views which is of no less value than the papers and discussions of the regular sessions.

The Proceedings are to be published in full, and will be furnished free of charge to all members whose dues are paid ; meanwhile, our readers will be glad to have the following abstract from the minutes as furnished by the Secretary.

E. A. F.

THURSDAY AFTERNOON, JULY 28.

The Fifteenth Meeting of the Convention of American Instructors of the Deaf was called to order in the chapel of the Ohio Institution for the Deaf and Dumb at 3 P. M., Thursday, July 28, 1898, by Mr. J. W. JONES, Superintendent of the Ohio Institution, who delivered an address of welcome full of cheering words and inspiring thoughts. In conclusion, he expressed regrets that Governor BUSHNELL was absent from the State, and read a letter from the Governor which assured the members of the Convention of the honor Ohio felt in having them as its guests. Mayor BLACK, who was to have welcomed the Convention on behalf of the city, was also unavoidably absent and sent his regrets.

Mr. JONES then announced that although Gov. BUSHNELL could not be here, his next best man, the Lieutenant-Governor, would speak for him on behalf of the State. Lieutenant-Governor JONES then came forward, and in happy style welcomed the Convention to Ohio. He spoke especially of the great advancement along educational lines, and assured the Convention that Ohio would be found in the front rank in providing for the education of her children.

Mr. JONES then introduced the President of the Convention, Dr. EDWARD M. GALLAUDET, of Washington, D.

C., who responded on behalf of the Convention. He assured the Ohio people that the members of the Convention appreciated the royal welcome which they had received. He reminded the Convention that they had met in Ohio forty years ago and also twenty years ago. He reviewed carefully the work of the Association, and spoke earnestly of the great task before it. He said that there were several delegates here from foreign countries, and he knew they would be ready to respond to the welcome given them.

He then introduced Mr. F. D. CLARKE, of Michigan, who said that he felt like coming home when he came to Ohio. He spoke of the close educational relation between Ohio and Michigan, and paid a glowing tribute to the Ohio teachers.

The President then called upon Mr. R. MATHISON, of Ontario, who spoke of the close bond of sympathy between Canada and England and the United States, and expressed a hope that the union of the English-speaking races might be more firmly established than ever. He referred to the value of previous meetings of the Convention, and of the great good all had received from them. He expressed a desire that the present session might be a very profitable one.

The President said that the American Convention was broad enough and liberal enough to embrace the whole world. He then introduced Mr. W. H. ADDISON, of Glasgow, Scotland. Mr. Addison's speech, like Mr. Mathison's, was full of good words for America, and for a closer union of the Anglo-Saxon races. He spoke of a similar meeting of instructors of the deaf recently held in London, and said that he bore a message from that meeting to this one, which he read to the Convention.

The President next introduced Dr. WARRING WILKINSON, of California, as a representative from the Pacific Coast. Dr. Wilkinson reviewed the work of the past, referred to

friendships formed at former conventions, and expressed great hope for the future.

Dr. E. E. WHITE, of Ohio, was then introduced, and spoke earnestly in behalf of a higher plane of scholarship. He said he had made up his mind years ago that State institutions should be free from politics, and his voice and his influence should always be in that direction.

The Convention then adjourned to 9 A. M., Friday morning.

FRIDAY MORNING, JULY 29.

After the doxology, rendered simultaneously in signs and orally, prayer was offered by Dr. W. H. DE MOTTE, of Indiana. The President announced that Mr. J. R. DOBYNS, of Mississippi, had been elected Secretary. Mr. DOBYNS moved the appointment of Mr. L. A. ODEBRECHT, of Ohio, and Mr. PERCIVAL HALL, of Washington, D. C., as Assistant Secretaries. The motion was carried. The roll of members was then called by the Treasurer, Mr. J. L. SMITH, of Minnesota.

The President made a few remarks, setting forth the conditions of membership in the Convention, both active and honorary, and urging all teachers and active workers in the education of the deaf to join.

The Secretary read letters from several absent members, including Mr. S. T. WALKER, Miss SARAH FULLER, Mr. J. A. GILLESPIE, Mr. C. S. PERRY, Dr. G. O. FAY, Mr. C. W. ELY, and Dr. RICHARD ELLIOTT.

A letter from Mr. ROMERO, late Minister from Mexico to the United States, was also read, expressing his regrets at the impossibility of teachers from Mexico coming to the present meeting.

Dr. J. C. GORDON, of Illinois, expressed the regret of Dr. P. G. GILBERT at being absent and brought his regards to the Convention. Dr. WILKINSON expressed the regrets

and regards of Dr. I. L. PEET. Mr. TATE brought regards and greeting from Dr. J. L. NOYES.

Mr. W. O. CONNOR, of Georgia, then moved that the Secretary draft a letter to these members, sending the regards and greetings of the Convention to them. Dr. E. A. FAY, of Washington, D. C., moved the addition of the name of Professor SAMUEL PORTER to the above. The President suggested further the name of Mr. D. C. DUDLEY. Dr. W. H. LATHAM's name was also added, and following still another suggestion it was finally voted to send a telegram from the President and Secretary to the gentlemen named.

Mr. J. H. CLOUD, of St. Louis, moved that a committee of three be appointed by the President to select interpreters for the deaf. The chair appointed Mr. CLOUD, Mr. E. L. CHAPIN, of West Virginia, and Mr. J. C. BALIS, of Ontario, as the committee.

The President then read his address, in which he reviewed the gratifying progress of the schools during the past three years, but expressed regret that some schools which he named had become the prey of political spoils-men, while in at least one other false notions of economy had worked detriment.

Dr. GORDON expressed his regret at the inclusion of the State of Illinois among those named as subject to political influence. Mr. J. T. RUCKER, of West Virginia, also objected to the inclusion of his State in this list, while Mr. C. H. HILL, of Missouri, maintained that such inclusion was just.

Mr. MATHISON pointed out the possibility of the successful development of a school superintendent even though he might be chosen entirely from political motives, and might be without previous experience.

Mr. F. D. CLARKE regretted the discussion, and moved that the regular order of business be taken up. This was carried, and Mr. CALDWELL, acting chairman of the

Normal Section, took the chair. Papers on the study of grammar were presented from Dr. E. A. FAY, Mr. J. W. BLATTNER, of Texas, Mr. J. H. WOODS, of Illinois, Mr. I. B. GARDNER, of Arkansas, and Mr. L. M. LARSON, of New Mexico. Discussion followed in which Dr. WILKINSON, Mr. F. W. BOOTH, of Pennsylvania, and Miss MARY McCOWEN, of Chicago, took part. The opinion generally expressed in the papers and discussion was that grammar should not be taught at the beginning, but that it was useful later in the course.

FRIDAY AFTERNOON.

A letter from Mr. BLATTNER was read announcing that his absence was due to the advent of young Mr. Blattner. Mr. SWILER proposed the name of Columbus for the youthful discoverer.

The Secretary read a telegram from the Business Men's League of Detroit, asking favorable consideration for their city as the place of the next meeting. On motion of Mr. DOBYNS this was referred for action to the Executive Committee.

The work of the Normal Section was resumed, and Mrs. A. C. HURD, of North Carolina, gave an interesting and instructive exhibition of language and oral work with a congenitally deaf child.

The work of the Kindergarten Section was then taken up, with Miss McCOWEN in the chair. Papers were read on "Nature work in Kindergartens for the Deaf," by Miss KATE STROUSE, of Arkansas; "Kindergarten Work in the New Jersey School," by Mr. WESTON JENKINS, of New Jersey; "Kindergartening in its Relation to Language Teaching," by Miss MARGARET MCGILL, of New York; and "The Practical Value of Kindergarten Work in the Indiana School," by Mr. R. O. JOHNSON, of Indiana. Miss EDITH FULTON and Miss EVA HEIZER, of Indiana, at the request of

Mr. JOHNSON, supplemented his statements as to the methods and value of the work. A paper on "The Kindergarten Work of the Rochester School," by Mr. Z. F. WESTERVELT, of Rochester, N. Y., was read.

Dr. WILKINSON made a few remarks urging the inadvisability of the Kindergarten as a department in schools for the deaf. Mr. J. W. SWILER, of Wisconsin, mentioned the valuable work of the Kindergarten classes in the Wisconsin School; Dr. GORDON told of the peculiarities of the Kindergarten work in the Illinois School, and Mr. JOHNSON added a few more remarks concerning Indiana. Miss McCOWEN defended the Kindergarten, and gave an interesting talk about the methods of work in her school.

The meeting then adjourned.

SATURDAY MORNING, JULY 30.

The meeting was called to order by the President at 9.10. Prayer was offered by the Rev. JOB TURNER, and the minutes of the previous meetings of the Convention were read and approved.

Mr. CALDWELL announced that Mr. E. McK. GOODWIN, of North Carolina, and Mr. C. SPRUIT, of Iowa, had been added to the Committee of the Normal Section.

Mr. MATHISON moved the appointment of a committee, composed of Mr. D. W. McDERMID, of Manitoba, Mr. E. B. NELSON, of New York, and Mr. T. P. CLARKE, of Michigan, to arrange a service for Sunday afternoon. Carried.

Mr. WARREN ROBINSON, of Wisconsin, chairman of the Industrial Section, then took the chair. He opened the proceedings of the Section by a short address, showing the great part that manual training has played in the advancement of the deaf, and urging the necessity of considering it real educational work and of making it go hand in hand in our institutions with the regular school work.

Dr. A. L. E. CROUTER, of Pennsylvania, being asked to

explain the operation of the "trades bureau" at Mt. Airy, did so, and made some further remarks showing the high character of the trades teaching in his school. Dr. DE MOTTE spoke of the advantage of the trades bureau. Mr. J. A. TILLINGHAST, of Ireland, spoke of the experiment being tried in the London schools of giving trades scholarships to boys and girls while apprentices. Dr. WILKINSON spoke of the helpfulness of manual training in the building of character, and said the London plan had long been in operation in the California school.

Mr. J. E. RAY, of North Carolina, read a paper on "Trades for our Rural Pupils," pointing out the desirability of teaching to our pupils, who come mostly from the country, trades adapted to life in the country.

Papers by E. J. BENDING, of Wisconsin, on "Manual Training for the Deaf;" by Mr. F. C. LAWSON, of Wisconsin, on "General Work in Printing;" and by Mr. F. D. CLARKE, of Michigan, on "The Division of Time Between the School and the Shop," were read. Mr. CLARKE advocated more time for trades teaching, especially among older pupils, and emphasized the fact that pupils should learn to work several hours at a stretch in their best manner.

Papers on "Barbering as a Trade for the Deaf," by Mr. NURSE, of Ontario, and on "The Training of Shoemakers," by Mr. P. P. PRATT, of Michigan, were read.

Dr. E. A. FAY, in support of Mr. Ray's contention for teaching trades adapted to country life, spoke of the fact that, according to the census returns of 1880 and 1890, a large majority of the deaf in the United States, contrary to general opinion, are living in the small towns and rural districts, and not in the cities.

President GALLAUDET spoke of the value of fostering this tendency to remain in the country, and referred to the large number of young men educated at Gallaudet College who had engaged successfully in agricultural pur-

suits. Mr. F. D. CLARKE showed the necessity of teaching rapid and accurate special work in trades schools, and of the choice of suitable trades. Mr. W. K. ARGO, of Colorado, spoke of the great handicap now laid upon many trades teachers in being compelled to do the repair work of the Institution as well as teaching. Mr. J. W. SWILER, of Wisconsin, mentioned the value of manual training in preparation for trades learning. Dr. CROUTER showed the importance of the difference between manual training and trades teaching, and urged that the latter be of the very best. He spoke strongly of the necessity of keeping the trades schools up to date, by employing the latest improved machinery and the best of teachers, and expressed the belief that under such conditions the deaf could compete in every way with the hearing.

The meeting then adjourned.

SATURDAY AFTERNOON.

The meeting was called to order by the President.

Mr. CALDWELL took the chair, and the work of the Normal Section was continued. Miss FANNY GLENN, of Missouri, read a paper on "Language Work in a Primary Oral Class." The paper was illustrated by examples on the board.

President GALLAUDET then introduced the Hon. L. D. BONEBRAKE, Commissioner of Education of Ohio, and the Hon. J. W. SIFTON, Inspector of Public Institutions in Manitoba. Both gentlemen spoke words of hearty greeting. Mr. SIFTON evoked loud applause by expressing, in behalf of Canada, the best wishes for the United States in the war with Spain. Dr. GALLAUDET, in response, spoke enthusiastically of an alliance of all English-speaking people for the advancement and improvement of the whole world.

A paper on "Oral Work by Deaf Teachers and Man-

ual Work by Oral Teachers," by Professor A. G. DRAPER, of Washington, D. C., was read. The paper set forth the duty of deaf teachers to aid, as far as possible, in the oral work of the school, and the value of a knowledge of the manual alphabet and signs to oral teachers who really wish to do the most good for the deaf.

A paper entitled "A Suggestion Concerning the Use of Adapted Stories for the Deaf," by Mr. G. M. TEEGARDEN, of Pennsylvania, and one entitled "What Value have Stories in the Teaching of Language?" by Dr. JOB WILLIAMS, of Connecticut, were read. The papers of the afternoon were discussed by Mr. ROBERT PATTERSON, of Ohio, Miss EFFIE JOHNSTON, of Illinois, Miss L. M. BOOTH, of Indiana, Dr. GALLAUDET, Dr. CROUTER, and Dr. FAY. Questions from the question-box were answered by Mr. DUDLEY, Dr. WILLIAMS, Mr. HECKER, and Miss BOOTH. The meeting then adjourned.

SUNDAY MORNING, JULY 31.

President GALLAUDET lectured in the chapel. His subject was "Childlike Manliness." He was assisted in conducting the services by the Rev. Messrs. J. H. CLOUD, O. J. WHILDIN, and JOB TURNER, and Mr. S. J. VAIL. Mr. J. C. BALIS rendered a hymn in signs and at the close of the session a collection was taken up for the Ohio Home for the Aged and Infirm Deaf.

SUNDAY AFTERNOON.

A song service under the direction of Mr. McDERMID was held in the chapel. It was opened with prayer by Dr. DE MOTTE. An interesting musical program was carried out, consisting of selections by the orchestra, a hymn by the congregation, and a vocal solo by Miss SCHENCK. Hymns were rendered in the sign-language by

Mrs. CHARLES KERNEY and Mr. BALIS. Dr. GORDON, Dr. WILLIAMS, Dr. DE MOTTE, Mr. YATES, Dr. CROUTER, and Mr. BOOTH presented answers to written questions that had been handed in, dealing with the conduct of religious teaching and moral development. In the evening an enjoyable hour was spent in singing hymns.

MONDAY MORNING, AUGUST 1.

The meeting was called to order by the President. Prayer was offered by the Rev. Mr. EAGLESON. The minutes of the sessions of July 30 and July 31 were read, amended, and adopted.

The Secretary read telegrams from Professor PORTER, Mr. DUDLEY, and Dr. GILLET expressing their best wishes for the Convention. He also read letters from Governor PINGREE, of Michigan, and Mayor MAYBURY, of Detroit, urging the selection of Detroit as the place of the next meeting. The latter were referred to the Executive Committee. Dr. FAY read a list of persons proposed for honorary membership, and the persons named were elected.

Mr. ARGO presented a resolution asking for 25 minutes for the question-box at the beginning of each session and, if possible, 45 minutes at the end for discussion. Carried.

Dr. WILLIAMS presented a resolution that the Executive Committee be empowered to spend money, when necessary, to secure proper legislation in behalf of the education of the deaf. Mr. F. D. CLARKE spoke in favor of the resolution, showing the great need of putting the Committee in a position to send an expert delegate, in cases of difficulty in the institutions, to influence the decision of investigating boards. The resolution was adopted.

President GALLAUDET called attention to the business meeting to be held in the evening, and urged that all eligible persons who were present should become members of the Convention.

Dr. GORDON, as chairman of the Oral Section, was called to the chair. He introduced the work of the Section by congratulating the Convention on the progress made in oral work and the stopping of strife between methods.

A paper on Oral Teaching, by Mr. S. M. GREGORY, of Wisconsin, was presented. Owing to its length it was turned over to the Secretary to be printed.

A paper on "Expedients to Secure Distinct K and G Sounds," by Miss M. L. GEER, of Hartford, was read. Miss A. C. ALLEN, of Missouri, explained her way of obtaining these sounds, and Mr. W. H. ADDISON, of Glasgow, and Miss ALLEN discussed this question further.

A paper on "Exercises to Secure Correct Management of Breath in Speech," by Miss SARAH FULLER, of Boston, was read.

Miss DORA DONALD, of Iowa, gave an interesting talk about her work with LINNIE HAYWARD, a deaf-blind girl, and an exhibition of Linnie's ability to use speech and language. Mr. F. D. CLARKE spoke of Linnie's favorable progress, and on the possibility of educating the deaf-blind.

Mr. W. WADE, of Pennsylvania, a gentleman who has done much to promote the education of the deaf-blind, was introduced. Mr. WADE expressed regret at the prevailing idea that such children can be educated only in the Perkins Institution. Dr. GORDON mentioned a pupil educated at his school. Mr. CONNOR praised the great work done by Mr. WADE in stirring up interest in the deaf-blind.

Dr. CROUTER asked whether such pupils should be educated in the schools for the deaf or in schools for the blind. Dr. WILLIAMS and Mr. CLARKE expressed a belief that they should begin in schools for the deaf, to obtain a start in English, and then be transferred to schools for the blind, where all the appliances for teaching are easily

had. Dr. WILKINSON favored their education at home when possible. Mr. A. H. WALKER supported the plan of education in schools for the blind, where they would find better English among their associates and better opportunities for reading and self-improvement.

Miss BEATRICE CONDON, of London, England, read a paper on "Pure Oral Work in England."

The meeting then adjourned.

MONDAY AFTERNOON.

The work of the Oral Section was continued. Papers on "Oral Work in Germany," by Miss HERMINE HAUPT, of Kentucky, Miss JANE RUSSELL, of Pennsylvania, and Miss AGNES STEINKE, of Wisconsin, and one on "Oral Work in England, France, Italy, and Germany," by Miss KATE HOBART, of Boston, were read.

Mr. WARREN ROBINSON, of Wisconsin, read a paper on "The Advisability of the Entire Separation of Manual and Oral Pupils." Discussion was invited and Mr. AUGUSTUS ROGERS, of Kentucky, moved for a show of hands from the superintendents present on the main idea of the paper. Mr. F. D. CLARKE asked Mr. ROGERS to withdraw the motion, and Mr. ROGERS expressed his willingness to do so, but Mr. J. R. DOBYNS, of Mississippi, urged him not to comply with the request. President GALLAUDET spoke of the value of separating the oral and manual departments as proposed, but the difficulty of carrying it out in exactly the same way in every institution. In reply to a question whether the plan had suppressed the use of signs at the Mt. Airy school, Dr. CROUTER said that conventional signs were not used in the school room at Mt. Airy in either department. He requested that no vote be taken on Mr. ROGERS's motion. Mr. ARGO spoke of the value of separation in developing the speech habit. Mr. CLARKE urged the dropping of a

and Mr. SMITH expressed the opinion that the rotary system was excellent for higher classes with good teachers.

In discussing Dr. DE MOTTE's paper Miss COBB, Mr. ARGO, Mr. DOBYNS, Mr. READ, and Mrs. ZELL all referred to the great benefit of the Christian Endeavor Society in promoting religious development. Mr. FRANK READ, Jr., asked how to get children to read the Bible and understand it, and Mr. DOBYNS spoke of the value of the Christian Endeavor Society along this line. The chairman expressed approval of a book of selections from the Bible used by Miss YALE, and Mr. BOOTH advocated the use of the Bible itself in teaching the Bible. Dr. DE MOTTE spoke of the use of texts in daily chapel exercises. On motion, the discussion was closed, and the question-box was opened again. Questions were answered by Messrs. RAY, J. L. SMITH, A. S. CLARK, Miss A. A. HENDERSHOT, Rev. THOMAS GALLAUDET, Miss ANNA MORSE, Mr. MC-ALONEY, Mr. ROGERS, Miss GRIFFIN, Mr. ELY, Mr. BANGS, and the chairman. The session then adjourned.

TUESDAY AFTERNOON.

The work of the Normal Section was continued with Mr. CALDWELL in the chair. Questions were answered by Dr. GORDON, Miss SARAH PORTER, and Miss LE PRINCE. Papers by Mr. D. C. DUDLEY, on "The Value of Signs as a means of developing the Intellect;" by Mr. J. L. SMITH, on "The Teacher an Awful Example;" by Miss HOBART, on "Geography;" and by Mr. J. F. BLEDSOE, on "The Correlation of Geography and History," were read.

President GALLAUDET moved to refer the papers still unread to the Executive Committee for their decision as to the advisability of printing them. The motion was carried and the Section adjourned. Dr. GALLAUDET took the chair.

Mr. GOODWIN offered a resolution thanking Governor

Bushnell, Lieutenant-Governor Jones, the Board of Trustees, Mr. Jones and his wife, and the officers and teachers of the Ohio School for their hospitality. Carried.

Mr. PATTERSON presented a resolution from the undergraduates of Gallaudet College asking the Convention to use its influence in obtaining the observance of December 10, the birthday of Thomas Hopkins Gallaudet, as a holiday in schools for the deaf. Carried.

Mr. LARSON presented a partial report of the Committee on Necrology.

Mr. BOOTH offered a resolution that the Convention use its influence to counteract the idea that institutions for the deaf are charitable institutions. Dr. WILKINSON spoke of the influence that such action would have against political interference in schools for the deaf, and urged that superintendents of education and parents should cooperate in this way. Dr. GORDON urged that teachers of the deaf should connect themselves with educational meetings of all sorts. Dr. GALLAUDET spoke against the connection of schools for the deaf with boards of charities. Dr. GORDON said this connection was not unpleasant in Illinois. Mr. CLARKE, Mr. DOWNING, and Mr. MOSES spoke on the same side as Dr. Gallaudet. Mr. EAGLESON spoke of the public-school system as capable of being held up as a charity as well as the schools for the deaf. The resolution was adopted.

Mr. BALIS presented a resolution thanking the interpreters.

Mr. FRANK READ, Jr., offered a resolution that the Convention consider it advisable to hold its future sessions earlier in the summer. Mr. CONNOR spoke of the necessity of accommodating the time with the wishes of the Principal of the Institution where the Convention should be held.

Mr. T. P. CLARKE offered a resolution thanking the reporters of the Columbus papers for their excellent work.

These three last resolutions were adopted.



Mr. ADDISON expressed his high appreciation of the Convention and his gratitude for the kindness shown him in America. Mr. JONES responded to the resolution of thanks to the Ohio Institution, and said thanks were also due to the Convention for meeting in Ohio. Mr. DOBYNS added a few words, President GALLAUDET delivered a farewell address, and, after singing "America," the Convention adjourned *sine die*.

J. R. DOBYNS,
Secretary.

THE CONFERENCE OF SUPERINTENDENTS AND PRINCIPALS.

A MEETING of the Conference of Superintendents and Principals of American Schools for the Deaf was held in the chapel of the Institution for the Deaf and Dumb, at Columbus, Ohio, on July 27, 1898, at 3 P. M. The meeting was called to order by Dr. JOB WILLIAMS, Chairman of the Committee of the Conference, who read the call for the meeting.

On motion of Dr. E. M. GALLAUDET, Mr. N. F. WALKER, of South Carolina, was elected Chairman of the meeting.

On motion of Mr. R. MATHISON, Mr. J. H. JOHNSON, of Alabama, was elected Secretary.

Dr. WILLIAMS made a verbal report of the work of the Committee since the last meeting of the Conference, and requested the editor of the *Annals* to read to the Conference the following report, which he had made to the Committee :

COLUMBUS, OHIO, July 27, 1898.

Dr. JOB WILLIAMS,

*Chairman of the Committee of the Conference of Superintendents
and Principals of American Schools for the Deaf.*

SIR: I respectfully submit the following summary of my receipts and disbursements, as editor of the *American Annals of the Deaf*, from July 1, 1895, to July 1, 1898, inclusive:



CONFERENCE OF SUPERINTENDENTS AND PRINCIPALS OF AMERICAN SCHOOLS FOR THE DEAF,

COLUMBUS, OHIO, JULY 24TH, 1898.

(From a Photograph by Pach Bros.)

Receipts.

From balance on hand July 1, 1895.....	\$665 12
“ assessments on schools.....	5,007 62
“ individual subscriptions.....	1,028 56
“ sale of back volumes and numbers.....	210 36
“ advertisements.....	66 45
“ sale of Proceedings of Conventions, etc.....	13 74
Total.....	<u>\$6,991 85</u>

Disbursements.

For printing and engraving.....	\$2,531 59
“ salary of editor.....	1,433 33
“ articles of contributors.....	762 10
“ preparation of index.....	250 00
“ back volumes and numbers.....	121 65
“ rent and care of office.....	177 25
“ travelling expenses.....	47 59
“ postage, expressage, stationery, etc	212 92
Balance on hand July 1, 1898.....	1,455 42
Total	<u><u>\$6,991 85</u></u>

I submit also for the examination of the Committee the book containing the *Annals* account with the editor, which shows all receipts and disbursements in detail; also vouchers for all disbursements.

In January, 1896, in view of the increased expense of publishing the *Annals* six times a year instead of quarterly, the subscription price was raised from \$2.00 to \$3.00 a year. At the same time the rate of assessment on the schools supporting the *Annals*, which had been 40 cents a pupil and based upon the number of pupils present in the schools in 1876, was reduced to 30 cents a pupil, and was based upon the number of pupils present in the schools on the 15th day of November, 1895. Notwithstanding the reduction in the rate, the new assessment gave the *Annals* a considerable increase in income, on account of the growth of the schools since 1876. The number of schools accepting the new assessment was larger than expected, and the expenses proved to be less than estimated, so that during the two years 1896 and 1897 the surplus increased from \$665 to \$1,520. This year, therefore, the former subscription price of \$2.00 was restored, and the rate of assessment was reduced to 20 cents a pupil, based upon the number of pupils present in the schools on the 15th day of November, 1897. The present income is a little less than the expenditure, but in view of the balance on hand there is no occasion for anxiety.

The schools now contributing to the support of the *Annals* and the annual payments of each school are as follows :

<i>School.</i>	<i>Annual Payment.</i>	<i>School.</i>	<i>Annual Payment.</i>
Alabama	\$24 60	Mississippi	\$20 40
American	36 00	Missouri	12 00
Arkansas.....	30 00	Mystic	5 60
California.....	31 20	New England.....	5 80
Central New York	30 00	New Jersey	29 60
Clarke	31 60	New York.....	100 00
Colorado.....	16 20	North Carolina.....	16 80
Columbia.....	50 00	Ohio	92 40
Georgia	27 80	Ontario.....	54 60
Halifax	16 40	Pennsylvania	101 80
Illinois	99 80	Pennsylvania Oral.....	14 80
Indiana.....	63 00	Rhode Island.....	11 60
Iowa	36 00	St. Joseph's.....	70 40
Kansas	8 00	South Carolina.....	15 00
Kentucky	66 20	Tennessee.....	30 00
Le Couteux St. Mary's.....	27 80	Texas.....	51 20
Maine.....	14 20	Utah	13 20
Manitoba	9 80	Virginia	24 20
Maryland	24 00	West Virginia	16 00
Maryland Colored.....	6 40	Western New York.....	46 20
Michigan	75 00	Western Pennsylvania.....	40 20
Minnesota	12 00		

In 1896 an Index to the ten volumes of the fourth decade of the *Annals*, 1886-1895, inclusive, was published, and was distributed, free of charge, to the schools supporting the *Annals* and to individual subscribers.

Respectfully submitted.

E. A. FAY, *Editor.*

The report was accepted and ordered filed.

Dr. GALLAUDET moved that the committee be re-elected to serve until the next meeting of the Conference. At the request of Mr. MATHISON, his name was left off the list, and that of Mr. D. W. McDERMID, of Manitoba, was substituted. With this change the committee was re-elected, as follows:

JOB WILLIAMS, of Connecticut, R. O. JOHNSON, of Indiana, J. E. RAY, of North Carolina, A. L. E. CROUTER, of Pennsylvania, and D. W. McDERMID, of Ontario.

Mr. F. D. CLARKE, of Michigan, offered the following resolution:

Resolved, That the Executive Committee be directed to arrange for the meetings of the Conference at some time and place other than that set for the meeting of the Convention of Instructors.

The resolution was seconded by Mr. METCALF, of Utah. After some discussion, participated in by Messrs. GALLAUDET, SWILER, METCALF, and JOHNSON, of Alabama,—Messrs. METCALF and JOHNSON extending invitations to the Conference to meet at their respective Institutions,—the resolution was adopted.

On motion of Mr. F. D. CLARKE, the Conference then adjourned to meet at the call of the Committee.

J. H. JOHNSON,
Secretary.

HEARING DEAF-MUTES.—III.*

II.

THE conflict of methods that, in recent years, has been noticeable in the domain of deaf-mute education is really nothing new. It is only the continuation of a strife as old as the art of teaching the deaf itself. If this conflict has lately been waged with peculiar bitterness, if the cry of distress of the deaf has become louder and louder until it has reached the ear of the public and the highest authorities, it is simply because the German school of deaf-mute education seems to be more and more at a loss as to what task it has to accomplish, what means it should adopt, what aims it should pursue.

Deaf-mute schools can certainly have but the one object of filling for the deaf, as far as possible, the place of the public school. Deaf-mute schools are educational institutions, and their task is to provide the deaf with an education commensurate to their capacities and necessities, and to provide them with such mental and moral training

* Continued from the June number of the *Annals*, page 219.

as will enable them to become useful members of the State, the community, and the church.

Now, instead of steadfastly keeping this object in view and of leaving no means untried which might help to the winning of the goal, our German deaf-mute school has for many years fallen back on mere artifices and experiments, and has strayed into petty method making, and thus into an automatism that is even now producing the most lamentable results. The German school has, theoretically, incorporated the object defined in its official program, but theoretically only and as a mere matter of form. In practice, aims are set and tasks attempted which are irreconcilable with the higher object. In short, in its all absorbing efforts to make the dumb speak, the German school has elevated a means to the dignity of an end, and, in striving after the unattainable, has neglected that which lies within reach.

Originally there were two methods in hostile opposition : the *French school*, which recognized in the sign-language and writing the most efficient means of instruction and education, and the *German school*, which sought to provide the deaf-mute with the gift of speech, and gave this feature a central position in the course of instruction, without, however, wholly discarding the help of signs. The German method has emerged victor from the conflict, and at present ought to find determined opponents neither among the deaf nor among their teachers.

Instead, however, of being content with this victory, some over-zealous teachers thought it incumbent upon them to go still further and to purge the old method of heresies. Henceforth the slogan was : " Either German or French. Either speech or gestures. No compromise ! " and at the International Congress at Milan the *pure oral* method was declared the true salvation of the deaf.

This fatal resolution, I regret to say, was fathered by persons who were occupied almost exclusively with the

education of the semi-deaf and semi-mutes, and, as the shouters in this controversy did not scruple to make the talismanic cry of *Progress!* serve their purpose, and no deaf-mute teacher cared to incur the odium of being in opposition to this sentiment, deaf-mute institutions working under essentially different conditions gradually joined the procession, heedless of the fact that what might be meat for one might be poison for another.

The whole conflict of methods may be traced back to a single error in theory and judgment. Even Samuel Heinicke, the founder of German deaf-mute education, erroneously held that the deaf possessed every requisite to the acquisition of oral language, and that the deaf-mute stood in the same relation to speech as a normal person to a foreign tongue. To this day we have not been able to rid ourselves of this fallacious conception.

At the third convention of German deaf-mute teachers, held at Augsburg in 1894, Mr. Vatter, of Frankfort-on-the-Main, the most zealous exponent of the pure oral method, gave expression to this idea, as follows: "In the conflict between the oral and the manual methods there is no third combatant, no compromise. It is a mistake to speak so much of what is *negative*, viz., the suppression of gestures, the language so natural to the deaf, and so little of what is *positive*, viz., of the education of the deaf in and by means of speech, *for which they are adapted just like other people.*" If we divest this statement of its polemical husks, we find as residue this theory: "*The deaf-mute has the same capacity to acquire oral language as any other person.*" As a corollary of this untenable proposition, Mr. Vatter, in the same paper, advanced the following: "The task of German deaf-mute schools is essentially to educate the deaf in oral language. The employment of the language of gestures hinders the development of speech. In these two simple sentences * * * we find the end and means of our task tersely

and definitely indicated. * * * *I estimate the efficiency of a deaf-mute school, and of the individual teacher, in the first place, according to the proficiency of the pupils in speech."*

The educators of the deaf have from the first recognized in the deaf-mute a being capable of and needing an education, and gifted in *general* with the same capacities as normal persons. Among these capacities we especially include the power of comprehension and the use of reason, but never has any one had the temerity to place the deaf-mute on the same level as hearing persons when the nature of his speech is considered. If the deaf-mute has the same faculty for speech as the hearing person, I cannot see in what respect he differs from the hearing person, and I cannot explain how, with equal capacities for speech, he attains such essentially different results. Why does a deaf person, as contrasted with one who can hear, remain *dumb*, if both possess the same capacity to acquire speech? No; Mr. Vatter's theory is untenable and undeserving of any criticism, for even the uninitiated layman must see its absurdity. The deaf-mute is *not* adapted like any other human being to oral language, but rather his distinguishing characteristic lies in the circumstance that, along with hearing, the natural incentive to oral language is lacking. The instinct that impels the hearing person unconsciously to employ his vocal organs for the expression of thought is *missing* in the deaf, and no human skill can create it. Constraint can certainly make many things habitual, but speech must ever be something artificial to the deaf-mute—something foreign to his inner being and forced upon him from without. It is a dress that does not fit; it is a straight-jacket to his mind, in which his movements are heavy and awkward, like those of a swan on dry land. The characteristic mark of the deaf-mute, on the contrary, is always the sign-language, bursting irrepressibly from his inner self,

and moulding itself plastic to his thoughts. Neither cajolery nor brute violence will ever induce the deaf to part with this gift from heaven. Wherever we turn in the deaf-mute world, we see them using this language. Seldom do we hear them speak, and more seldom still do we understand them when they do speak.

It is almost incomprehensible that at the end of the nineteenth century fallacies like the above should still maintain their ground—fallacies that are an insult to the intelligence of humanity. More astonishing still is it to find defenders of these fallacies among teachers of the deaf, who, occupied with the deaf day in and day out, must constantly have the proofs of their error before their very eyes. Thus, Mr. Vatter, as editor of a professional publication, constantly finds co-laborers who have adopted his theories and with touching simplicity rally to their defence. For instance, in the issue of the "*Organ der Deutschen Taubstummen-Anstalten*" for last May, we find the following: "If it be true, and it is true, as is generally acknowledged [?], that the deaf-mute is equipped with the same mental capacities as a normal person, then it follows that, in the process of speech-acquisition by a deaf child, the same forces must be active as with hearing persons in the acquisition of their mother tongue." And in another place we read: "The relation of the deaf-mute to speech is analogous to that of the hearing person to the language of signs. Since humanity, as a whole, speaks, and the minority must submit to the majority, there can be no question but that the deaf must of necessity learn to speak." "Between the deaf and the hearing there exists a deep chasm which must be bridged. We have but one alternative. Either the handful of the deaf must be led over to the hearing, or the vast mass of the latter must be conducted to the former. Either the hearing as a whole must acquire the language of the deaf, or the deaf must learn to understand and use the language of the hearing."

It is evident that with this brilliant logician "numbers are decisive," for "it is much easier to lead an infinitesimal fraction over to the great mass than to make the great mass subservient to the rest, who, heaven be praised, are so few."

According to this logic the blind should, perforce, see and the lame walk. What a pity, however, that such jargon can neither make the deaf hear, nor the dumb speak! This foolish attempt to appear clever and give a scientific buttress to fallacy, reminds me of the syllogism of the ancient sophist: "Ham produces thirst. Thirst makes one drink. Drink quenches thirst. Ergo, ham quenches thirst."

Notwithstanding the chasm existing between the deaf and the hearing is so great, it does not receive proper consideration from the exponents of the pure oral method. The oral enthusiasts misinterpret their duty and overestimate their skill when they think they can bridge the abyss and remove the infirmity of the deaf. The deaf-mute is and must always be a step-child of mother Nature. Our duty consists in this only, that, with *due consideration of his infirmity*, we try to bring the deaf-mute in as close touch as possible with the rest of humanity, and make him intelligent, moral, devout, and useful in practical life. Our deaf-mute schools are, primarily, educational institutions for both mind and heart, and secondarily only are they curative establishments. For many years, however, the tendency has been to reverse this order. The representatives of the pure oral method—with whom we must now count the champions of the auricular method—wish to turn our schools into sanitariums. They proclaim themselves masters of the art of healing, and shout from the housetops that they make the dumb speak and the deaf hear and after that treat them just like normal children. And these pledges are made with such assurance that every teacher in whom

there is yet a spark of veracity feels like hiding his head in shame. It is simply mortifying when, for instance, the *Blatter für Taubstummenbildung* has the following in a report of the institution at Klagenfurt: "Henceforth it shall be the noble aim of our school to loose the tongue of the dumb, and improve their hearing—in short, to teach the deaf to speak and, so far as lies within the bound of human skill, also to teach them to hear, thus making our school, in the true sense of the word, a curative institution."

Exaggerations have never been lacking in the domain of deaf-mute education, but the fallacies of the last few years surpass any that have marked the past. My position in regard to the pure oral method is well known, as is also the agitation produced by my writings. For a number of years my pen has been idle, and I have earnestly endeavored to submit my opinion to a thorough revision. And, since observation and experience are the only reliable guides we can have, I have taken a survey of the deaf-mute world at home and abroad, and above all have striven with the utmost diligence to attain in my own class-room those results which the leaders in our profession demand and pledge themselves to accomplish. To keep silent longer about the result of this revision would be a betrayal of the deaf and of our whole cause. No matter who is concerned, I must say that in spite of all the attacks to which I have been subjected, I cannot be coerced into withdrawing the least of my former strictures, but that, on the contrary, I regret that I did not proceed more sharply still against a theory that must be branded as a gross error in the history of curative science. No expression can be strong enough to denounce the superficiality and frivolity with which the representatives of the present method make assertions of apparently fundamental importance. At no time has the divergence between theory and practice been so great as to-day.

The representatives of the pure oral method are in the highest degree guilty of Guggenbühlism when they assert that all classes of deaf-mutes can be adequately educated by oral instruction, and that they can be advanced sufficiently to hold intercourse freely with the hearing world by word of mouth. If this were possible, even-handed justice should call the entire profession before her bar. The teachers of the deaf-mute should be asked why they have not redeemed their pledges or why they have not protested against claims which they cannot fulfill. The results promised by the exponents of the pure oral method are to be found nowhere. They lie in the shadow land of phantasy.

To make the degree of proficiency with which the pupils speak the criterion of the efficiency of a deaf-mute institution or of the individual teacher would be the rankest injustice possible. Such a standard must of necessity lead to a false estimate of both teacher and pupil. According to such a standard the instruction is of profit to only a minority of our pupils, while a majority of the deaf are defrauded of the education to which their capacities entitle them. Even with the greatest skill and conscientiousness on the part of the teacher, reinforced by the greatest docility and effort on the part of the pupil, it is still impossible to bring all deaf-mutes to an intelligible articulation. The Biblical query, "Do men gather grapes of thorns or figs of thistles?" can be aptly applied to these pupils. With such pupils the present method sinks to the level of cruelty and automatic drill. In the fierce struggle to suppress the language of signs which nature has given to the deaf-mute, and to force upon him a language which Providence has denied him, both teacher and pupil dissipate their best powers, and the precious school years vanish without leaving any desirable legacy as the result. The schools of the present day do not place the highest importance on intellectual

development but rather on lingual gymnastics. Every year hundreds of pupils leave our institutions who, during their seven or eight years at school, have led a dream life, who, in fact, have never come to any mental awakening, and who consequently must suffer all their life from intellectual marasmus. These pitiable beings, who can express themselves neither by word of mouth nor writing, who cannot comprehend the simplest items in the daily papers, have been sacrificed to a false method, a method for which it is claimed, in sonorous phrases, that it alone is capable of restoring the deaf-mute to humanity.

Experienced teachers are well aware that, in later life, these deaf-mutes, thus inadequately educated, confer little honor upon their institutions or their teachers. Mr. Walther, director of the Royal Deaf-Mute Institution at Berlin, wrote pertinently a few years ago in *Blätter für Taubstummenebildung*: "I must not leave unmentioned another circumstance that has always filled me with anxiety, namely, that the adult deaf come into conflict with the law with a frequency beyond all proportion." And soon afterward a friend of Mr. Walther gave expression to the following, in the same publication: "Why write about or discuss a cause that yields such evil fruit? A majority of the deaf, as a class, are possessed of a spirit of haughty self-satisfaction, of falsehood and recalcitration, not to mention what is still worse, in a degree that Providence alone can drive it out. Whether it would pay us to ponder over ways and means to banish these demons appears to me just now more than doubtful." To this is appended the opinion of a highly cultured lady whose misfortune it is to have two deaf-mute brothers-in-law: "These people form a terrible class. They are altogether unbearable. Everything they say is infallible; whatever their complaint, it is always justified; whatever they desire must be complied with; and whoever disagrees with them is bad."

Whoever enters into close relation with the adult deaf must unfortunately learn that these scathing arraignments are borne out by actual facts. For many years I have made observations in this direction, and I must acknowledge that a majority of the adult deaf exhibit such an immaturity in judgment and conduct, such an indifference and callousness toward everything connected with good morals and gentle manners, that it is high time to devise means to effect a reform. I therefore agree with Mr. Walther when he says: "If, in addition to careful instruction in speech, we had given more attention to the moral development of the children entrusted to us, the brutalization that to-day confronts us with such frightful aspect in many of our former pupils would be impossible. We now estimate an institution exclusively according to the oral development of its pupils. If they articulate well, if they read the lips with ease, if they can express themselves fluently, it is sufficient, as these qualities form the standard of excellence. One scarcely ever inquires into the manner of moral education."

The educated deaf of every country have from the very first protested against the Milan resolution—that is, against the application of the pure oral method. They have resorted to every legitimate weapon of modern times to defend their rights. In order to prevent the violation of the individuality of their younger brethren, the adult deaf of Germany have, by publishing a paper of their own, established a medium of co-operation and agitation. They have formed well-organized associations, and since 1892 they have formulated the following resolution at the largely-attended conventions of Hanover, Wiesbaden, and Nuremberg: "The members of the Convention condemn, with one voice, the pure oral method now in force in Germany, and unanimously favor the combined system—the combination of speech with the language of signs." The International Congress of the Deaf at Chicago during

the World's Fair unanimously adopted a similar resolution. Again, about a thousand German deaf-mutes petitioned his Majesty the Emperor directly for relief. The reply sent September 17, 1892, in a ministerial edict, was negative, and culminated in the following sentence: "Careful inquiries have revealed that no reason exists to permit a change in the present method of deaf-mute instruction." In this edict attention is called to the successes said to have been achieved in individual institutions with the present method. But it was unfortunately entirely overlooked that these results were achieved almost exclusively with the semi-deaf and semi-mutes.

Though perhaps no special significance is to be attached to the opinions of the deaf in pedagogical matters, still they are in a position to give the most accurate and trustworthy estimate of the comparative value of the various means of intercourse in school and after life. It certainly does not create a favorable impression of the infallibility of a method when teachers and pupils stand in open feud with each other as soon as the latter have left school. Unfortunately, things have come to this pass in Germany and everywhere that the pure oral method has gained a foothold, and this unfortunate state of affairs will continue so long as teachers of the deaf regard the creation of audible harmonious sound as their chief task in life; so long as they cling to antiquated fallacies and neglect the study of the psychical life of the deaf; so long as they ignore those philological phenomena which explain why one born deaf remains dumb, why the deaf find no sufficiency in articulate speech, why they are under the necessity of creating a medium of communication consisting of visible gestures. I have discussed all these questions so thoroughly in my publication, "*The Deaf-Mute and his Language*," that further psychological investigations are here unnecessary. If, however, the assertion is still made that the deaf-mute has the same capac-

ity for articulate speech as any other person, then I would like to call attention to a few facts which must convince anyone yet having any sense of truth of the fallacy of this assertion.

1. A child of normal capacity, with the senses intact, has an innate bent toward oral language and learns to speak as spontaneously as it learns to use its hands and feet. Its mother tongue is unconsciously and involuntarily appropriated and interwoven with its very being in the same manner as the customs and beliefs of its environment.

2. The blind child expresses itself in the same manner as a normal child, by means of articulate sounds addressed to the ear. But its facial expression, gestures and motions addressed to the eye remain retarded in their development, and show a striking lack of distinctness and sharpness.

3. A child born deaf and surrounded by a hearing environment remains dumb, and endeavors to express itself by visible gestures, by a sign-language evolved in intercourse with its environment.

4. A child that has learned to speak but has lost its hearing at an early age, say from four to eight years, gradually loses its speech. It gives up the method of communicating thought hitherto employed and unconsciously adopts the manner of expression of the deaf.

5. Those deaf-mutes in our schools who have been artificially taught to speak communicate with one another, in spite of all commands to the contrary, almost exclusively by means of signs. They invent some visible sign for every word learned, and in memorizing their lessons translate the verbal language into their sign-language. They learn, to quote an expression of the foster-parents of our pupils, with the hand.

6. The normal children of deaf-mute parents unconsciously learn two languages. In communicating with

their deaf parents they employ the sign-language, while at the same time, in their intercourse with the hearing, they learn and use oral language.

These facts demonstrate, incontrovertibly, that there is an inseparable mutual dependence *between oral language and the ear and between the sign-language and the eye*. Oral language is an audible language. It has its source in the hearing and addresses itself to the ear. The sign-language, on the contrary, is a visible language based upon the sense of sight. When hearing is absent from the time of birth it is impossible to speak of oral language, and where the sense of sight is lacking there can be no development of a visible language—a language of gestures. The human race, if deaf, would never have brought forth an oral language, nor, if blind, a language of gestures, while the race having both hearing and sight is endowed with the capacity of expressing itself both by means of speech and visible gestures. As a matter of fact, Providence has equipped man with a double language apparatus, one aural, the other visual, and, in reality, a normal person employs both media to show others what he thinks and feels.

In the face of such facts it simply surpasses the understanding when, nowadays, teachers of the deaf assert that normal persons stand in the same relation to the sign-language as the deaf to speech. A normal person possesses every requisite necessary to the understanding and use of the sign-language, and experience teaches that persons brought into close relations with the deaf, unconsciously and without any teaching, adopt their mode of expression. This is not the case with the deaf-mute. Even though his intercourse is exclusively with hearing persons, he remains dumb in consequence of his deafness. Though he possesses the organs necessary to the production of oral sounds, he has no auricular perception of these sounds. He cannot view the thought-

image dressed in a garb of tone, and, therefore, the inaudible articulatory processes do not give his conceptions the necessary basis ; they do not satisfy the demands of speech-producing mental activity. The hearing is more important than the vocal apparatus. A hearing person who has lost his speech as the result of an affection of the throat, has, nevertheless, a very great advantage over the deaf-mute, for he can enjoy intercourse with his environment. He possesses a full comprehension of speech, and it is much easier to converse with him than with a deaf-mute who has been trained with the best success. Even when a deaf-mute has gained a high degree of oral development, he still remains comparatively isolated in the society of hearing people. I have never met a *bona fide* deaf-mute who was able to follow and successfully take part in the general conversation of hearing people. In society, lip-reading is so precarious and confronted with so many difficulties that hearing people in most cases instinctively resort to gestures and writing in order to make themselves understood by the deaf—means which experience has taught them lead most quickly and surely to the desired result.

“For the deaf-mute there exists only a visible form of speech.” This truth, formulated by De l'Épée, the greatest of the benefactors of the deaf, has to this day failed to be understood by the apostles of the pure oral method. The representatives of oralism believe they can refute this truth by coaxing sounds from the deaf, which, forsooth, they claim everybody can hear. But they obstinately refuse to see that these sounds do not reach the deaf-mute as sounds, and that to him the words of the teacher, however resonant, represent only methodical mouthings.

Just as the venerable fallacy that the sun revolved around the earth was supported by the appearance of reality, so with the method which deals exclusively with speech as a means of instruction. It must also be con-

fessed that there is no other method by which such effect can be produced in the school-room. The fact that individual pupils really speak audibly produces an overwhelming impression on every layman, and, therefore, visitors leave our school-rooms generally with exclamations of the greatest astonishment. A layman has the most modest expectations in connection with the deaf. Abandoning himself entirely to his new impressions, he seldom inquires into the knowledge and ability of the pupils, and still less into their moral education, and into the permanent results of our laborious work. On the contrary, the peculiar articulation awakens his pity to such a degree that his criticism exhausts itself in the phrase so familiar to the teacher: "What more can one expect from these unfortunates?"

While the defenders of the oral method invite the public to visit the schools and be convinced of the truth of their tenets, I would make an earnest request of every kindly disposed person to try everywhere and at every opportunity to communicate orally with the deaf. Such communication will be successful with true deaf-mutes only in very rare instances. In the schools the visitor is shown specimen bricks only—words and little phrases in which the pupil has been carefully drilled. In public examinations the quickness in lip-reading and the accuracy of the answer are almost supernatural, the pupil often being ready before the teacher has performed his own part. At such gala exhibitions it sometimes happens that the pupils seem to have the gift of tongues, and divine questions which the teacher still hides modestly in his breast. On such occasions, the game of question and answer is played so merrily that the uninitiated person completely forgets that he is at a deaf-mute school. But no sooner does he attempt, the exhibition over, to talk with these same children about the simplest matters, than they are completely transformed. Their facility in speech-reading deserts them, and their lips are again mute.

The representatives of this method demand that the deaf-mute should think in oral language so that the spoken word may become the carrier of his thought. But as the pupil, in his perplexity, again and again stumbles and grasps at signs, we have this foremost mandate: "The language of signs must be banished completely from the classroom and from the intercourse of the deaf." In order to carry out this tenet they make use of the "principle of direct oral association;" *i. e.*, they attempt to connect the word directly with the idea by ignoring gestures, and, if necessary, employ writing instead. This principle would have to be recognized as correct if the above demand were at all rational, and it would be rational if the deaf-mute stood in the same relation to speech as a normal person to a foreign language. But this is not at all the case. An oral language as we understand it—that is, an audible sonorous language based on the sense of hearing—has no existence for the deaf. For them there exists only a visible form of speech. If, therefore, the deaf-mute again and again resorts to the nearer language of signs, the defenders of the oral method may protest as much as they please, but their demand that the deaf should think orally is thrown to the winds.

"The principle of direct oral association" can be applied in full purity only in object-teaching, only where words can be associated with concrete things, with conditions, attributes, and activities perceptible to the senses. I can bring a sparrow into the class-room, and, without gestures, can teach the pupils the name of the bird, what it is, what it does, and what it suffers. The case is different in the upper grades where it becomes our task to lead the children into abstract realms of thought. In the sentence "Charles had a heavy dream, but he was unable to form a clear idea of its details," the much vaunted "principle" deserts us ignominiously. One does not carry a "heavy dream" in one's pocket, nor can we

make a display of "a clear idea" on the table. But we want to teach the children what these expressions mean, to explain heavy, unpleasant, or pleasant dreams, and clear and vague ideas. At this point the paths of the pure oral method and of the combined system diverge. The representatives of the former think they can accomplish their purpose by means of complicated definitions, while I do not shrink from showing the children, through the medium of gestures, dreams about snarling dogs and blood-thirsty bandits, about father and mother, brother and sister, about the splendors of the Christmas tree and the joys of Christmas. For this purpose I pretend to be sleeping, and while fear and horror, happiness and contentment are mirrored in my face, my hands explain what is passing before the eye of the mind. The children follow all my motions intently, and, when I open my eyes, their shining faces corroborate the accuracy of my explanations. I have dreamed just as they have dreamed, and they now have a clear idea of what was meant by unpleasant or pleasant dreams.

At this point the friends of the spoken word turn away from me with loathing, for in this little comedy I have not only made use of "natural" pantomime, have not only used "*mimicry and action*," which are, at any rate, still tolerated to reach my end, but in my infatuation I have resorted to "*artificial*" signs, for have I not regaled the children with the signs, known to everybody, for father and mother, brother and sister, cat and dog, bread and butter, money, dirt, and revolver? By using these conventional signs I have betrayed myself as having no understanding of the task of the German deaf-mute school, and, therefore, I deserve immediate execution or banishment to the galleys. In view of such sacreligious disregard of the principle of the pure oral method, my opponents begin again, in chorus, their old refrain: "Away with gestures!" "Every gesture must be banished from the

class-room." "Natural signs form a path that necessarily leads to the sign-language." "The sign-language can be successfully combatted only when the teacher rejects all signs, even natural ones." "As long as we see gestures in the German institutions, so long will the system of deaf-mute education suffer from a cancer which will sap the marrow of oral language, and, therefore, of all true education." "Oral language alone can rescue the deaf-mute from his mental darkness. Therefore, down with the language of gestures and let only the spoken word be used!"

The prohibition of gestures does not, as the reader has already seen, extend to the school-room alone, but also to the leisure hours and to the conversation of the pupils with one another. The dominant law here is: "As soon as speech instruction has been fairly started [after the first year] neither teacher nor pupil may employ any gesture, either in school or out."

Any farsighted teacher needs all his self-control to restrain his indignation in the face of this unwarranted and truly idiotic regulation. How can one expect of an ordinary deaf-mute child, from seven to ten years of age, who has completed the first year's course and has learned about 150 easy words and from 60 to 70 simple little sentences, that this paltry language fund can suffice for the necessities of his conversation? The ability to speak and the ability to understand and use language are two very different things. When a hearing child has been made acquainted with the rudiments of a foreign language and the pronunciation of individual sounds and sound combinations and some dozen words, it would be preposterous to expect him to converse in this language and to dispense with his mother tongue. Nor is a freshman able to converse freely in a new language of which he has just begun the study with a senior or with the professor. The circumstances are similar but still worse in a deaf-

mute school. Independent of the fact that lip-reading is a process of mental torture and that conversation of the deaf among themselves is much more easy and sure in gestures than in speech, the older pupils do not know the extent of the vocabulary of their younger mates. In larger schools the pupils do not even know, with certainty, to which grades the others may belong, and the degree of mental development of the children is so varied that it is simply an impossibility for the pupils of the different grades to carry on a verbal conversation with one another. If we prohibit the use of gestures by the pupils among themselves it results in the total loss of the educational influence of the older pupils upon the younger—an influence the value of which should not be underestimated.

In the older and larger schools we always find a well-developed language of signs, consisting of conventional gestures, which has been bequeathed to each succeeding generation and still further developed at each stage. Among the deaf the genius for visible signs is so strong that the new pupils learn the sign-language in vogue at the school with astounding rapidity. Long before the instructor can teach them the names of their classmates, of the persons employed at the school, of the days and months, and so forth, they are already in possession of the signs for these words, so that they can discuss subjects for which their oral attainments are as yet inadequate. Nor must it be forgotten that a deaf-mute child entering school at an age of from seven to ten no longer stands upon the same plane of mental development as a two-year-old infant who is just learning to talk. His mental development is in advance of his language, and his surplus of intellectual energy of necessity seeks an outlet in the language of signs. Therefore, in almost every deaf-mute school I have visited I have observed that the pupils make the most extensive use of the sign-language in their intercourse with one another. Only in one school

did I find an exception, and here the pupils made a heart-rending impression upon me, for they neither made signs nor spoke, but sat there in silence. Here the achievement of eradicating the noxious weed had actually been accomplished, but I was unable, during my short visit, to ascertain by what means. The head of the school was not a little proud of the achievement. But that in children of rudimentary development thought and expression are identical, that they cannot think without giving utterance to the thought, that therefore by the forcible repression of the sign-language the mental activity of the children was crippled, that in fact the results achieved were the outcome of brutal violence—all these things seemed to have escaped the notice of this tender pedagogue.

Similar success in the suppression of signs was attributed years ago to Inspector Arnold, of Riehen, a teacher of whom it is well known that he devoted himself almost exclusively to the education of the semi-deaf and semi-mutes. But there can hardly be two opinions as to whether the means there employed to keep the school free from signs are to be commended from a pedagogical point of view. Arnold himself said: "I appealed to the pride of my pupils, saying, 'An ape makes grimaces and gestures. If you make gestures you will resemble an ape. Do you want to be apes?' In addition, I warned my pupils that I should have to punish any one who in future should use the sign-language." Not long ago one of Arnold's pupils described these methods in one of our periodicals: "Whoever managed to go a week without signs received a link of sausage as a reward. As a mark of his satisfaction and appreciation the inspector would lift his velvet skull-cap to those pupils whose monthly examination was endorsed 'very good.' These last also received a handful of dried apples, while their teacher received a double quantity." Another pupil has given me additional information of the condition of affairs then ex-

isting at Riehen, but this information is of such a nature that for the present I prefer to let the letter stay in a secret drawer of my desk along with similar documents.

If the observations I have made in various schools at home and abroad have convinced me of the untenability of the pure oral method, my personal experience during the course of twenty-two years with my own pupils has led no less to the same result. I have tried, especially with my present class, which I have now conducted for six years, and which consists mostly of bright pupils, to put in force the fundamental principles of the pure oral method with the utmost faithfulness, but the attempt may be called a failure. It is simply impossible to bring deaf-mutes of all mental grades to an intelligible articulation; while to attempt to eradicate the sign-language in the larger schools is a useless undertaking. Though I conduct my lessons rigidly by means of speech, and question and answer follow each other with a rapidity that is extremely pleasing, still I do not deceive myself, but know that all my pupils, like all the rest in the school, think in signs. Though I have, all these years, daily and hourly kindly admonished these pupils, have seriously remonstrated, and have resorted to the sharpest means of discipline, they nevertheless use signs as soon as my back is turned. At the same time the children are really of a very good disposition, fulfill their school-room tasks with pleasure and emulation, and try to anticipate my slightest wish. Only in one point do I meet with obstinate resistance. Against the sign-language I am helpless. Last year I detected one of my pupils, a very bright boy, several times during the course of the same morning using signs. When at last, after repeated admonitions, I seized a switch, he ejaculated in his terror: "Oh, please, they come of themselves." Such a plea must disarm the sternest teacher and make him thoughtful. But really this exclamation of a thirteen-year old boy contains more philosophy than all

the defenders of the pure oral method put together have ever been able to advance. This pathetic appeal of a deaf-mute child attests the veracity of the old saw: "*Naturam expellas furca, tamen usque recurret.*"

By no means that are permissible can we either suppress the sign-language or attain intelligible speech with all deaf-mutes, and it is, therefore, folly still to insist upon requirements that the experience of more than a century has shown to be impossible. Even if it had to be acknowledged that the sign-language exerted a detrimental influence upon the acquisition of oral language, still it is of such superlative importance for the intellectual life and mental development of a majority of the deaf, that this disadvantage can hardly be weighed at all against its advantages. It is also entirely erroneous to assert: "Either oral language or signs—there is no third choice." As in so many other cases, the truth is here to be found midway between these two extremes. Because of the great importance of the cause I would herewith respectfully and humbly invite the adherents of the pure oral method, as well as the authorities, kindly to investigate whether a judicious combination of the two means cannot very well lead to satisfactory results, to successes that will in nowise be inferior to those of the present method. But the main thing is this: these results will be attained without offering violence to the individuality of the deaf-mute.

Though my pupils are familiar with the sign-language, and use it almost exclusively among themselves, they nevertheless make a very good showing in oral language. The degree of success in speech depends upon the degree of the infirmity of our pupils, and accordingly I have good and poor articulators in my class. But nearly all have made such progress orally that it is not only possible to converse with them by this means, but they also read intelligently simple news items in our daily papers, and make them the subject of oral conversation. These pupils

have thus been lifted out of their mental isolation and provided with the means for their further education, so that it is to be hoped that when they leave school they will prove themselves useful members of society. And, in doing this, the school has accomplished its aim and fulfilled its duty.

It is a perversion of facts when certain teachers assert again and again that the pure oral method has conquered the world and is constantly winning more and more recruits. Thoughtful teachers have long recognized this method as erroneous, and are everywhere turning back to a system of instruction that gives due consideration to the individuality of our pupils, and that can be successfully applied to all classes of the deaf. Thus in 1886 the practical Americans agreed unanimously, at a convention in California, upon the following resolution :

WHEREAS, The experience of many years in the instruction of the deaf has plainly shown that among the members of this class of persons great differences exist in mental and physical conditions, and in capacity for improvement, making results easily possible in certain cases which are practically and sometimes actually unattainable in others, these differences suggesting widely different treatment with different individuals: it is, therefore,

Resolved, That the system of instruction existing at present in America commends itself to the world, for the reason that its tendency is to include all known methods and expedients which have been found to be of value in the education of the deaf, while it allows diversity and independence of action, and works at the same time harmoniously, aiming at the attainment of an object common to all."

This resolution must win the recognition of all who are capable of acknowledging that the deaf have not been created for a method branded with failure, but that the method of instruction must fit itself to the individuality of the pupil. Therefore, considering the conditions that prevail in most deaf-mute schools, I may sum up as follows :

1. The purpose of deaf-mute schools is to supply the place of the public schools for the deaf, and to develop

their pupils into reasoning, moral, religious, and useful men and women.

2. To attain this end, the deaf, in addition to all kinds of useful knowledge and accomplishments, should learn the language of their country, both in its oral and written form.

3. Since, however, experience teaches that with many deaf-mutes it is impossible to attain intelligible articulation, and oral language does not give these pupils the necessary stimulus, the chief importance must be placed upon written language, a comprehension of which may be secured by means of direct object teaching and the use of the sign-language.

4. The language of words occupies a central position in deaf-mute schools, and must be regarded as the most important object of instruction. The sign-language, on the contrary, is only a hand-maiden in its service—it forms no object of instruction, but serves only as a means to an end.

5. The process of instruction, therefore, should be so shaped in practice as to encourage the pupils to use language, either oral or written, as much as possible, while the teacher is at liberty, in explaining the lessons, to supplement the spoken and written expression, if necessary, with signs.

6. In their intercourse among themselves the pupils should be allowed to use the sign-language.

The purpose of these several stipulations, which must be acknowledged as thoroughly reasonable, is not to introduce a new method, but the plan of instruction employed years ago by Hill, that peer among German teachers of the deaf. Their aim, above all, is not, as has been asserted, partly maliciously, partly from lack of proper understanding, to banish articulation from the instruction of the deaf, but to accomplish a suitable combination of all those means of communication and education which will best

further the attainment of our ends with a majority of our pupils.

It is immaterial whether we call this system pure or mixed, German or combined. What is most important is that it can be applied advantageously with all classes of the deaf, and that by its adoption we shake off the shackles of a fallacy which for years has brought nothing but evil to a large proportion of our pupils. For there can be no doubt that a hypothesis according to which a deaf-mute has the same capacity for speech as any other person, must lead to unwarranted exactions and outrageous treatment of the pupils. One cannot undertake to investigate to what extent the deaf have been thus sinned against in all these years, without creating a disagreeable sensation and incurring the reproach of wanton and unprofessional meddling. If, however, His Excellency, the Minister of Education, rendered invisible by some magic cap, could only spend a single morning with a few classes of dull pupils, and thus obtain ocular proof of the abuses to which the pure oral method leads, I am certain the great man would not only replace his edict of September 17, 1892, with another, but would also take immediate measures to provide adequate inspection and supervision of our schools.

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THE FIFTH YEAR'S WORK.*—I.

I. LANGUAGE.

THUS far we have had the great assistance of the American School Course, as set forth in Miss Sweet's four little books, and with a few exceptions, principally the introduction of questions at a much earlier stage than they are used by Miss Sweet, we have followed it

* For the work of the first four years, see the *Annals*, vols. xxxix-xlii, *passim*.

very closely. We have now arrived at a place where the ocean of language spreads out before our class, offering a great number of ways to choose from, and we have lost our faithful guide. In outlining a course to be followed this year, I cannot speak with the same assurance as I did in the past; not that I have not thought long and earnestly on the language work of this year, and tried faithfully to find some course that I could say was, if not the best, at least good and sure, but because the individuality of each pupil asserts itself more and more, and it becomes harder to say how much of the improvement made in language is due to special instruction in it, and how much to the daily use of it in other studies. Mr. W. G. Jenkins says: "The secret of teaching language to the deaf is to repeat words and phrases over and over again, until they are so interwoven with the texture of the brain as to become instinctive." While this is true, it does not follow that there should be no system in what we repeat. If we have none, we may travel in a circle, and at the end of the year be no farther than we were at the beginning.

For this year, begin with "Talks and Stories for the Deaf,"* as a reading book to put into the hands of the pupils. Do not confine yourself to it, and do not spend too much time on it. The lessons in Geography will form a most excellent foundation for drill in language, and these lessons should be thoroughly taught and commented on, so that at times, for weeks perhaps, they will be all the language work you will need. Make them the subject of much written and spelled conversation between the teacher and pupil. I think it a very good plan to insist on having some English thoroughly memorized every day; but I would not have this the definitions and language of a text-book to too great an extent. Some of it might be,

* By Wm. G. Jenkins. Published by the American School, at Hartford, for the Deaf, Hartford, Conn.

with benefit, such poems, hymns, rhymes, and proverbs, as other children learn. While very great liberty can be allowed in the selection of the language to be memorized, it should always be well understood by the pupils, and should never consist of definitions of things they do not know. After you have taken your children out and shown them a hill, an island, a stream, a cape, etc., and have had them build them on the sand table, on a slate with putty, or on the earth itself on one of your walks, you may let them learn the definitions of the names of these things which they know. Do not expect them to make an object from its definition, or, harder yet, to imagine one.

After finishing "Talks and Stories," take up "A Handbook in Language for the Deaf, by Rosa R. Harris,"* as a basis for a portion of your language teaching for the next year or two. Copy on your slate as much of any of the lessons as you think your children can master. There is no reason why you should teach the book in any particular order, so you can choose any one of the lessons that you think will most interest or benefit your class at that particular time. Have your children seated in front of their desks, as near you and your slate as they can get without crowding. Make your lesson a spelled conversation, writing (or having your pupils write) those parts that need emphasis, or that you wish memorized.

We will suppose that you have made a selection from what Miss Harris gives on "Photographs and Pictures" (page 66), and that you have been careful to provide yourself with objects to illustrate your lesson.

In the following conversation, much of the language put down as coming from the pupils was given by the teacher, but the ideas come from the pupils, as this is a greatly abbreviated report of several lessons on this subject.

* Published by the Maryland School for the Deaf, Frederick, Md.

"Julia, what is the name of this?" (Showing a photograph.)

"A photograph."

"Do you wish to have your photograph taken?"

"No."

"Why not?"

"I had some taken last week."

"Oh! did you? I did not know that. Does any one here wish to have a picture taken?"

"You do, Mary? Where will you go to have it taken?"

"Down town."

"To whose gallery?"

"I do not remember the man's name, but I know where the gallery is."

"Where is it?"

"It is upstairs, at the corner of —— and Saginaw streets."

"Do any of you boys wish to have pictures taken?"

"What, not one of you? I thought boys were vain. Willie, why don't you wish to have your picture taken?"

"I have not enough money."

"Oscar, why don't you?"

"I want to save my money for a ball."

"Henry?"

"I had my picture taken last summer, for my mother. I have some left."

"Have you? Will you give me one?"

"I will exchange with you."

"John, why don't you wish to have your picture taken?"

"My brother can take pictures. He will take mine, when I go home."

"Has he a camera?"

"I do not know what 'camera' means."

[The teacher makes a rough sketch of one.]

"Oh! now I know. He has two; a large one and a small one."

"Is he a professional photographer?"

[The teacher again has to explain at some length what is meant by being a professional and an amateur, after which John says:]

"No. He takes pictures for fun, but sometimes people pay him for his pictures."

"Then he is an amateur photographer."

"I think so."

"Can you show me how he takes a picture? Suppose you are a professional photographer, and that Mattie and Allie have come to have a picture taken."

After a little coaxing, John, Mattie, and Allie act out a visit to a photograph gallery, the teacher giving suggestions occasionally, and keeping the acting in hand by insisting on a spelled conversation, furnishing the language where the pupils do not have it. In this conversation most of the words given by Miss Harris are brought in.

It is not necessary to give more of this lesson, partly because any good teacher can go on with it after getting the idea, and partly because no one could give it again exactly as it was, for so much of it consists of the individual ideas of the pupils. It can easily be seen that one of the lessons given in the book can be made a foundation for several days' work.

Whenever you notice that any of your pupils are having trouble in using a word or phrase, or that they make repeated mistakes in its use, make it a subject of a special drill. Write on your large slate several sentences, using the word as it should be used, and bringing out its different meanings clearly. Explain, analyze, and diagram these till you are sure that each pupil understands them clearly, and then have them memorized and reproduced next day. Do not explain the words, and have your pupils write the sentences. Though deaf pupils are very fond of this exercise, I am more and more convinced that, while it is very valuable as a test of the pupil's knowledge of a word,

as a means of teaching it is almost useless, or even positively injurious. Give correct idiomatic sentences which you have carefully prepared, and which are such as you would like to have your pupils use, and have them memorized and reproduced. "Words and Phrases," by William G. Jenkins,* will be very useful to the teacher in preparing these lessons, and ought to be on every teacher's desk, but do not depend on that book alone. Keep your eyes open for repeated mistakes and correct them in this way. Never mind the time it takes ; it is well spent.

Some time during this year find time for a thorough and long-continued drill on the verb and all its parts. This must be systematic, and must teach the use of all the regular auxiliaries, and of all the verbs sometimes used as such. Have a written scheme of the verb, and work the development of all its parts into your other language exercises. It may be old-fashioned, but I know of no better plan, and, after trying, have failed to devise one that I think as good as Dr. H. P. Peet's "Further Development of the Verb," given in "Peet's Course of Instruction, Part III,"† beginning at page 133. As the book is not out of print, it is not necessary to reproduce it here. I do not mean to say that I think it necessary to put this book into the hands of the pupils as a text-book, but I am sure that you will rapidly and surely improve the language of your pupils by following that course, using the book as your own guide, and greatly amplifying the skeleton exercises given in it. Of course you need not teach your pupils the names of the moods and tenses, nor give them a scientific lecture on their uses, but simply by drilling give them the ability to use, or at least to understand, all of these forms. When you arrive at the present tense, you may omit all that the learned doctor says about the habitual present.

* Published by the American School, at Hartford.

† Published by Baker, Pratt & Co., New York.

Your pupils have the idea, though probably not one of them could express it, that this form of the verb, the tense they began with, is the one they naturally use when the idea of time is not particularly prominent, and when they wish to emphasize the time idea they will usually take another tense. While this is not in every case absolutely true, it comes nearer expressing how this root tense of the verb should be used in English than any rule you can make your pupils understand.

With the exercises pointed out in this article you can fill all the time you have to devote exclusively to language work until your class are sufficiently advanced to take up formal grammar and review the whole subject.

Do not, however, let anything take the place of the language work which constantly springs from the events that happen every day. It will not do to depend on these alone, for they occur too irregularly for everyday work; but use them to the fullest extent when they do come. It has always seemed to me that these language lessons founded on actual events have a clearness and force and produce a lasting impression that we can get in no other way. Use everything that turns up. If your pupils quarrel in signs make them write or spell it all out. Watch for every case where a pupil feels the need of language to express himself, and give the language while the want of it is still felt.

FRANCIS DEVEREUX CLARKE,
Superintendent of the Michigan School, Flint, Michigan.

[TO BE CONTINUED.]

THE ABBE DE L'ÉPÉE AND THE TEACHING OF SPEECH.*

I PROFESS an unlimited admiration for the character and work of this, as J. Ferreri says,† the most beloved of the educators of the deaf, whose fame, encircled by world-wide homage, continues growing through the ages; and I can, therefore, without hindrance, pass judgment upon him with all the impartiality of the historian.

The majority of writers, beginning with Degérando,‡ have confined themselves to an exposition of generalities, of principles, of statements even, which now and then are contradictory; it will, therefore, not be without interest to determine with precision what was the attitude of the Abbé de l'Épée in regard to the teaching of speech.

Speech, in the education of the deaf, may be considered either as a means of instruction, in which case it figures as the fundamental feature of the method, or simply as a means of communication, in which case it is only a matter of secondary importance, a complement to the course of instruction. In the first case, the part it plays is of the highest importance; in the second case, it is only a process of teaching to be added to others, a mechanical medium of communication, the most insignificant and the most neglected part of the education.

In order to understand the Abbé de l'Épée thoroughly, to appreciate his doctrines fairly, to review his practice with equity, it seems necessary to consider the matter from this twofold point of view.

* Extracted, by permission, from "Pages d'Histoire. L'Enseignement de la Parole à l'Institution Nationale de Paris" (Paris: Georges Carré et C. Naud, 1897. 8vo., pp. 48). Translated by DUDLEY W. GEORGE, M. A., Instructor in the Illinois Institution, Jacksonville, Ill.

† J. Ferreri, *Le sourd-muet et son éducation*, Vol. III, "Historique," p. 160 *et seq.*

‡ Degérando, *De l'éducation des sourds-muets*, Vol. I, p. 451 *et seq.*

Let us ascertain, first, what was the position of the illustrious Abbé in regard to speech considered as the principal means of education, as the basis of the method.

On this first-named point there is no room for doubt. The head of the French school, the inventor of the system of methodical signs, was, and could not but be, the convinced, resolute, and uncompromising adversary of that which we to-day call the oral method. His words, his actions, his writings all testify alike and unmistakably that the founder of the French school was an opponent of the oral system. His dissension with the Abbé Deschamps,* his quarrels with Péreire,† his controversy with Heinicke‡ and Nicolai,§ arose from no other source.

On this point the writers pretty generally agree. In fact it would little conform to historical truth to assume that the Abbé de l'Épée was, to any extent, an advocate of the oral method.

This correct view is very clearly outlined by O. Claveau in his report for 1881 (pp. 39-40),|| in which he says: "A fundamental point of divergence separates the ideas of the Abbé de l'Épée from the first and most important

* "An unsuccessful effort was made to reconcile him [the l'Abbé Deschamps] with the Abbé de l'Épée. He refused to adopt a method which he did not approve and to abandon one which he thought to be preferable." Degérando, Vol. I, p. 486.

† *L'Institution des sourds et muets* (Paris, 1776), chapters I, II, and III. See also Degérando, Vol. I, pp. 396-430.

‡ See, in Degérando, Vol. I, p. 485 *et seq.*, the chapter entitled: "Controversies of the de Abbe de l'Épée with the opponents of his method." See also the *Traduction des lettres de l'Abbé de l'Épée et d'Heinicke*, by Mr. Alard, Instructor in the Paris Institution for Deaf-Mutes (1881). See, finally, the well presented summary of this controversy in Walther's History (Berlin), reproduced by Arnold, of Northampton (*Education of Deaf-Mutes*, Vol. I, pp. 89-90, London, 1888), and by the Rev. J. Ferreri, of Sienna, in his *History of Instruction*, pp. 185-199 (Sienna, 1896).

§ See Degérando, p. 500, and Walther.

|| *De la parole, comme objet et comme moyen d'enseignement dans les Institutions de sourds-muets*. Report to the Minister of the Interior, by O. Claveau, Inspector General of Benevolent Institutions. (Paris, 1881.)

principles of the oral method. It does not appear that he ever thought of making speech the direct and ordinary medium for the exchange of ideas in the work of education. It seems rather that a conception of this sort would have run counter to the views so systematically upheld by this celebrated educator."

In summarizing his method, P. Fornari, in the *Sordomuto che parla*,* writes: "According to the Abbé de l'Épée the language of signs is the only form of thinking that the deaf-mute is capable of."

"The method of Heinicke is founded upon speech, that of the Abbé de l'Épée upon signs," says the same writer in another of his books.†

L. Vaisse is no less explicit. He says: "The method of instruction by the aid of pantomimic signs, as it was conceived by the Abbé de l'Épée and judiciously modified by the Abbé Sicard and his followers, constitutes the French method of education for congenital deaf-mutes, the method against which, in the time of the Abbé de l'Épée, Germany opposed that followed at Leipsic by his rival, Samuel Heinicke."‡

So little was the Abbé de l'Épée in favor of the oral method of education that, in his second letter to Heinicke, we see him writing: "I would never advise the instructor at Vienna to give his pupils instruction in speech himself; I would simply recommend him to train teachers to devote themselves (under his supervision) to this mechanical labor§ and to reserve himself for more useful and more important things."

* Milan, 1872.

† *La chiave per far parlare i sordomuti italiani*, by P. Fornari, Milan, 1872.

‡ Un document retrouvé et quelques faits rétablis concernant l'histoire de l'éducation des sourds-muets en France. (A paper read before the convention of delegates from the learned societies at the Sorbonne, in 1876, by Mr. Leon Vaisse.) [Translated in the *Annals*, xxiv. 80-90.]

§ *Controverse entre l'Abbé de l'Épée et Samuel Heinicke au sujet de la véritable manière d'instruire les sourds-muets*, translated from the Latin by Alaud, instructor in the National Institution at Paris, p. 29, 1881.—*La véritable manière d'instruire les sourds et muets*, p. 276, 1784.

How could it have been otherwise in view of the fact that the Abbé de l'Épée did not believe it was possible to develop the intelligence of the deaf by any other means than signs? In confirmation of this view we find in the same letter this significant passage: "If Péréire (I beg you to take note of this) had desired to dictate this same letter to his pupils by finger-spelling, giving all the letters of the words contained in it, one of them could have reproduced it in writing without understanding the meaning of the words."*

The Abbé de l'Épée "saw only in methodical signs the power to replace the functions of speech."† "It was not to dactylology, he said, but to their reading that Sabouroux de Fontenai and the other pupils of Péréire owed their advancement.‡ "By another supposition, not less gratuitous and not less erroneous, the Abbé de l'Épée appears not to have been aware that with Péréire the manual alphabet was nothing but an auxiliary of writing"§ and of speech.

One more passage worthy of attention is the following extract from his second letter to Heinicke :

"Besides, if the teacher and the pupil devote to this unprofitable task (for the completion of which Péréire required from twelve to fifteen months) more than two hours a day, one in the forenoon and one in the afternoon, they will soon be overcome with fatigue, and they will see how laborious this method is. Besides, how shall the pupil, whose intelligence is in nowise brought into play, employ the rest of his time?"||

* *Controverse entre l'Abbé de l'Épée et Samuel Heinicke au sujet de la véritable manière d'instruire les sourds-muets*, p. 19 (already quoted).

† Dégerando, p. 488.

‡ *Institution des sourds et muets*, part 1, chap. I, p. 25, Paris, 1776.

§ Dégerando, p. 489.

|| *Controverse entre l'Abbé de l'Épée et Samuel Heinicke au sujet de la véritable manière d'instruire les sourds-muets*, p. 18. "While the tongue is being loosened, the mind is left in profound darkness." 2nd letter.

"You are in accord with Péreire upon one point : both of you contend that it is necessary to teach speech to the deaf before imparting to them a knowledge of things and of words. I have begun, in what I have said above, to combat this view, and I will continue to refute your objections."^{*}

We see from the above citations that, in the opinion of the Abbé de l'Épée, speech was a medium of communication whose *mechanism* might be imparted to the deaf, but which could have no claim to a place among the principal means of instruction.[†]

Finally, on page 24 of his *Institution des sourds et muets* (Paris, 1776), he distinctly avows himself opposed to the oral method. "In the first place, Mr. Péreire himself, in the words we have just read,[‡] gives us the most authentic proof that we ought to exclude *his method* in the education of the deaf and dumb whom we undertake to instruct.

"In fact, if, with children in one's own house, it requires

* *Controverse entre l'Abbé de l'Épée et Samuel Heinicke au sujet de la véritable manière d'instruire les sourds-muets*, p. 19.

† In view of this, what surprise should it occasion that Miss Octavia Morel, upon her return from Germany in 1833, expressed the following opinion of a school in which the oral method was in force : "The instructors at Gmünd, even while claiming that speech is the principal medium of communication between them and their pupils, would not attain the success in their instruction which we are pleased to acknowledge, if it were not for the fact that their gestures shed more light upon the minds of the deaf than do their words." *Quatrième Circulaire*, page 47. See Reports upon the Deaf-Mute Institutions of the Kingdom of Würtemberg and the Grand Duchy of Baden, visited in 1833 by one of the members of the Board of Administration (Degérando) and by Octavia Morel, a teacher in the National Deaf-Mute Institution of Paris.

‡ This refers to a programme published in 1751, in which it is said that Péreire divides his instruction into two parts : *pronunciation* and *understanding*. In the first part, which lasts from twelve to fifteen months, he teaches his pupils "to read and pronounce French without teaching them to understand more than a few of the most familiar terms of daily use, such as articles of food and dress, household furniture, etc." *Institution des sourds et muets*, pp. 21-23.

from twelve to fifteen months to instruct them only in that which he calls the first part of his art, how long would it take me to instruct, only in this same part, the deaf-mutes who come to me only twice a week? It is easy to see that, at the same rate, it would take me more than seven years; and what would they know then? *Words whose meaning they would not understand and some of the more familiar phrases. For this reason it has been necessary to find a shorter way,*" etc.

Much as the Abbé de l'Épée is opposed to the teaching of speech by means of speech—that is, to the essential principle of the oral method,—he seems impressed to an equal degree with the importance of speech considered as a complement of the education of the deaf. His writings bear the impress of this conviction. It is on this account that all his biographers recall the fact that he taught some of his pupils to speak, and that he recognized the utility there would be in teaching them all to speak.*

"The Abbé de l'Épée desired," says L. Vaïsse, "to train his pupils in the utterance of speech whenever it appeared possible to carry it beyond the limits of the merely curious and within the bounds of the useful;"† and O. Claveau adds:

"The Abbé de l'Épée was very far from undervaluing the advantage to the deaf of the ability to read on the lips and to utter articulate speech. He himself had obtained results of no mean value in this field of labor. The declaration contained in his book *l'Institution des sourds et muets* (part I, p. 155) and retained after his

* Walther. Degérando, pp. 477, 484. Thomas Arnold, *The Education of Deaf-Mutes*, Vol. I, pp. 78-80. Ferreri, *The Deaf-Mute and His Education*, Vol. III (Historical), p. 167, etc.

† Address delivered at the distribution of prizes at the Imperial Institution for Deaf-Mutes of Paris, August 12, 1854, by L. Vaïsse, Instructor of the Supplementary Class.

controversy with Heinicke in the edition of 1785,* 'The only way to restore the deaf to society,' etc., has been frequently cited and reprinted. And here are the principal passages of this declaration just as we find them in the book :

" 'The only way to restore the deaf and dumb wholly to society : The world will never learn to make their fingers and eyes run a race in order to have the pleasure of conversing with the deaf. *The only way to restore them wholly to society is to teach them to hear with the eyes and to express themselves with the living voice.* We do succeed to a great extent in this with our pupils, although they do not live with us and come to our lessons only twice a week. It is nothing, absolutely nothing, for them to be able to write from oral dictation without having a single sign made to them. One of our young lady deaf-mutes recites the church service orally with her teacher. * * * All of the older ones respond orally to questions which require only affirmative or negative responses. They add, when occasion requires, short sentences such as *I do not know, I cannot, I have not seen it.* A young deaf and dumb man publicly responds to me, unassisted, at the mass. * * * In 1773 he sustained a dispute orally in Latin. (The arguments were given him.) In 1774 more than eight hundred persons heard him deliver a four-page address in Latin.†

* See the article published by Mr. O. Claveau, in Buisson's *Dictionnaire de pédagogie et d'instruction primaire*, p. 2811. It is proper, however, to say that Mr. Claveau, generally so well informed, has here fallen into a twofold error. The second edition, or rather the second book, of the Abbé de l'Épée, *La véritable manière d'instruire les sourds et muets*, belongs to 1784 and not to 1785, and the famous sentence, so frequently quoted, is not found in it.

† This refers to an address delivered in public by Louis François-Gabriel de Clément de la Pujade, born deaf. See the Latin text of the address at the end of the Abbé de l'Épée's book, *La véritable manière d'instruire les sourds et muets*, p. 317. This same address, translated into French, appears in Mr. J. Alard's pamphlet, *Controverse entre l'Abbé de l'Épée et Samuel Heinicke au sujet de la véritable manière d'instruire les sourds muets*, Paris, 1881.

“Such as these are the results that may be obtained and certainly will be obtained when there are institutions devoted to this purpose. * * * For my part, I am willing to train and supply the teachers.’” *

It would properly be cause for surprise, after such a confession of faith, that the Abbé de l'Épée should not have done more than he did in the teaching of speech, if the illustrious educator himself had not taken pains to inform us that he afterwards found it impossible to reconcile his practice with his theory.

“When I did not have the great number of deaf-mutes to instruct who have afterwards come trooping upon me, the application which I personally made of the rules I have just explained (I refer to the pages devoted to the teaching of speech to the deaf) enabled me to put Mr. Louis François-Gabriel de Clément de la Pujade in condition to deliver a public address in Latin * * * and to reply to the objections of Mr. François-Elisabeth-Jean de Didier, one of his school-fellows. I also put a young lady deaf-mute in condition to recite the twenty-eight chapters of the Gospel of St. Matthew orally to her teacher. * * * These two instances should suffice. *But it would not be possible for me to do the same thing to-day.* And this is why:

“The lesson given to the deaf-mute, as far as the language is concerned, is utilized only by him; the instruction must be individual. Having, then, more than sixty deaf-mutes to instruct, if I should give each of them only ten minutes instruction in pronunciation and reading, ten whole hours would be consumed. And what man is there with health and strength enough to endure such an amount of labor? Besides, how could I continue the instruction in matters of religion? Now, this is the grand aim I have in view in undertaking this work.” The Abbe de l'Épée, therefore, on his own confession, ended by giving

** Institution des sourds et muets, pp. 155-158.*

up the attempt to teach speech to his pupils.* And one may, with right, inquire, whether, after such a declaration, the celebrated educator was, at the close of his career, as much convinced of the necessity of teaching speech as he was at the start, especially when it is seen that of the famous chapter cited above, "The only way to restore the deaf and dumb wholly to society," not the least trace appears in the edition of 1784.

There is no doubt, says Mr. Claveau in his Report for 1881 (p. 40), that the lack of time, of pecuniary resources, and of assistant teachers, impeded the development of this branch of his educational work.

However, it should not be forgotten that in certain schools founded under the auspices of the Abbé de l'Épée and by his disciples, those of Zurich† and Rome‡ among others, oral instruction was in favor, and it should not be forgotten either that the great French educator, in his books in which he describes his method, devotes considerable space to the study of articulation.

"In his *Institution des sourds et muets*, in 1776, the Abbé de l'Épée devotes two chapters to articulation; in 1784, the teaching of speech becomes the second part of his treatise (pp. 155 to 218), an important part, as one may see, from the place it occupies in the work."§

The best part of his treatises on articulation—so much must be said out of respect to truth—is drawn from the works of Bonet, Amman, and Wallis, as he himself declares;|| and the excellent man often spoke of the teaching of speech in terms which awaken our astonishment.

* *La véritable manière d'instruire les sourds et muets*, pp. 202-203.

† Claveau (First Report). ‡ Ferreri (History) "l'Abbé Silvestre."

§ See the complete analysis of the works of the Abbé de l'Épée in the *Bulletin bibliographique et iconographique de l'Abbé de l'Épée*, by Ad. Belanger, Instructor in the National Deaf-Mute Institution in Paris (1886.)

|| In working out his *Art of Speech* the Abbé de l'Épée consulted Wallis and Amman, compared their works, and put on the finishing touches,

"To teach the deaf and dumb to speak," says he, "is not a work that calls for much talent; it only requires plenty of patience."* "I have sometimes felt disposed to wager with savants that my method was so simple that I could make them masters of it in the space of half an hour."†

"When one wishes to teach the deaf to pronounce and read as an entirely distinct matter, they can be assigned to teachers who make a business of this sort of education. *For this purely mechanical labor men of talent are more to be feared than desired, for they would speedily grow tired of it.*"‡

It is not for the empty satisfaction of finding the good Abbe at fault, nor to censure him for his contradictions, that we recall these passages, but simply to throw light upon the history of our Institution.

From the preceding discussion a twofold conclusion may be drawn.

I. The Abbé de l'Épée was an opponent of the oral method.

II. He recognized, at first, that *the only way to restore deaf-mutes wholly to society was to teach them to hear with the eyes and to express themselves with the living voice*; and he even taught some of his pupils to speak; but in the latter part of his career he entirely abandoned, in practice, if not in theory, the teaching of speech.

The spirit of the Abbé de l'Épée, like a torch, lighted up the pathway of his disciples. His idea hovered over the Paris School for nearly a century; for nearly a century his disciples and his successors entertained the same so that to-day his *Art of Speech* can be looked upon by us as practically representing and summarizing all that had been promulgated before him concerning the mechanism of the voice." Dégérando, Vol. I, p. 477, Paris, 1827.

* *La véritable manière d'instruire les sourds et muets*, p. 155.

† *La véritable manière d'instruire les sourds et muets*, p. 163.

‡ *Ibid.*, pp. 203-204.

distrust of oral instruction as he, though they had not the same excuse.* This may be said, without detracting in the least from the incomparable glory of the man, the teacher, the apostle, who alone can boast of having inaugurated the era of redemption for the deaf and dumb.

MARIUS DUPONT,

Instructor in the National Institution, Paris, France.

SCHOOL ITEMS.

American School.—Miss Frances I. Brock, late of the Pennsylvania Institution, has been added to the corps of instruction.

Illinois Institution.—Mr. Frank M. Driggs, formerly a teacher in the Utah School, and for the past year a normal student at Gallaudet College; Mr. Ezra S. Henne, a graduate of the Michigan State Normal College and of the Normal Department of Gallaudet College; Miss Margaret J. Stevenson, late a teacher in the Wisconsin School, and Miss Edith Wyckoff, from the Iowa School, have been appointed teachers.

Iowa School.—Owing to large reductions in salaries, Mr. G. L. Wyckoff, Principal, and several of the teachers have resigned their positions. Charges of mismanagement have been made against the Superintendent, but on investigation by the Board they were not sustained, and Mr. Rothert has been re-appointed Superintendent for the next four years.

Kansas School.—Mr. George H. Putnam, late of the Texas School, has been appointed head teacher instead of Miss Israel. Mr. C. E. White, M. A., a graduate of the Normal Department of Gallaudet College, takes charge of the advanced oral class. Several inexperienced teachers take other places made vacant by the Board.

There will be six oral classes this year instead of two as heretofore. The time of the articulation teachers will be

* We quoted further back the passage in which the Abbé de l'Épée stated that his pupils were too numerous for him to think of teaching them to speak.

largely given to oral class work. The department of industrial cooking will be in the hands of Miss Bertha Spohr, a graduate of the Kansas Agricultural College, with special training in domestic science and household economy.

The State has recently purchased 32 acres of fine garden land about three-quarters of a mile from the Institution. It is the purpose to put in an orchard and many varieties of small fruits, and to give the pupils instruction in the principles of agriculture, horticulture, and floriculture.

Kentucky School.—In June last Miss Nellie Lyle, for several years an oral teacher in this School, resigned her position to be married to Mr. Herbert E. Day. The vacancy was filled by the appointment of Miss Mary Lyle, who received training for this work at the Pennsylvania Institution. Miss Lyle has been a teacher in Caldwell College for several years.

Mississippi Institution.—Miss Evelyn Simms, who has been a teacher in this Institution for the last two years, resigned and was married July 29 to Mr. T. B. Mosley, of Raleigh, N. C. Miss Fannie Gillespie, of Jackson, Miss., who was trained at the Clarke School, has been put in her place.

Missouri School.—Mrs. Helen A. Rose, matron, and Miss Grace H. Rose, teacher, resigned at the close of the last term. Mrs. R. C. Matthews has been appointed matron. Miss Elizabeth Kerr and Miss Nell Jones have been appointed teachers.

During the summer a hospital was completed, and a gymnasium for the boys and a greenhouse were built. Four new boilers, each of 125 horse-power, were put in, doubling the former heating capacity.

Nebraska Institution.—Mr. Waldo H. Rothert, B. A., a son of the Superintendent of the Iowa School, and a recent graduate of Gallaudet College, has been appointed a teacher.

New Jersey School.—A fine new hospital building has been erected, with accommodations for thirty patients. The ventilation is through a central shaft, with an upward current secured by independent heating. The building is heated by steam with a separate inlet of fresh air to each radiator. The cooking is by gas. The grounds of the School have been enclosed with an iron fence at a cost of \$1,200.

per cent. in 1897, while it has steadily increased in favor of oral methods from 13 per cent. in 1882 to $81\frac{1}{2}$ per cent. in 1897." Dr. Crouter adds: "The proportion will probably remain as it now stands for some time to come, as, in my judgment, there will always be a certain percentage, say from 10 to 15 per cent., who may better be taught by manual methods. This number may grow smaller, say to from 5 to 10 per cent., but I regard such a reduction as very doubtful. Time alone will solve the question."

Western Pennsylvania Institution.—Miss Mabel Libby has gone to the Rhode Island School, and Miss Georgia I. Stevens to the Pennsylvania Institution. Their places are filled by Miss Mary E. Holder, late of the Iowa School, and Miss Nellie M. Taylor, who has just completed a course of training in the Missouri School.

MISCELLANEOUS.

National Educational Association.—"Department Sixteen," the Department of the National Educational Association devoted to the education of the deaf, the blind, and the feeble-minded, met at the Franklin School during the sessions of the Association at Washington, D. C., July 7-12, 1898. The building, in charge of Mr. John Hitz, Superintendent of the Volta Bureau, was open all the time, and classes of pupils, books, handiwork, and other illustrative material, were on exhibition. The sessions of the Department were presided over by Dr. J. C. Gordon, Superintendent of the Illinois Institution, and papers were read or addresses made by President E. M. Galaudet and Dr. A. G. Bell, of Washington, Mr. I. B. Gardner, of Arkansas, Mr. S. G. Davidson, of Pennsylvania, Mrs. E. L. Osgood, of Massachusetts, Mr. R. C. Spencer, of Wisconsin, Miss L. E. Warren, of New York, and others. President Galaudet also delivered an address before the general meeting of the Association. Dr. Gordon was re-elected President and Miss Mary McCowen Secretary of the Department.

Trans-Mississippi Educational Convention.—A session of the Trans-Mississippi Educational Convention, at Omaha, Nebraska, June 29, 1898, was devoted to the education of the deaf and the blind. Addresses were made by Mr. J. A. Gillespie, of Nebraska, Mr. F. D. Clarke, of Michigan, and Miss Dora Donald, of Iowa. An exhibition was given of Mr. Gillespie's pupils, and of Linnie Haguewood, Miss Donald's interesting deaf-blind pupil.

Conference of Church Workers.—The Tenth American Conference of Church Workers among the Deaf was held at Columbus, Ohio, July 27, 1898. The morning meeting was held in Trinity Church. The Rev. A. W. Mann preached a sermon, giving a history of the work, and showing the value and importance of the Conference. Other church workers among the deaf who took part in the service were the Rev. J. M. Koehler, J. H. Cloud, and O. J. Whildin. At the afternoon session of the Conference, the subject of "Christian Unity and Deaf-Mutes" was discussed. Statistics and arguments were presented showing that the deaf-mutes are too few for denominational divisions. Letters appreciative of the work were read from Bishops Vincent, Leonard, and McLaren. In the evening a reception was held at Trinity House.

Conventions of the Deaf.—During the past summer conventions or school reunions of the deaf have been held in Arkansas, Indiana, Iowa, Maine, Maryland, Minnesota, New Hampshire, New York, Ohio, Pennsylvania, and Wisconsin. While the social element predominated in some of these meetings, in almost all of them there were valuable papers, addresses, and discussions on topics relating to the welfare of the deaf.

The Suppression of the Sign-Language.—We are requested to publish the following resolutions, which were unanimously adopted at a meeting of the British Deaf and Dumb Association, held at Crewe, England, on the 16th of June last, the Rev. W. B. Sleight, M. A., presiding:

(1) That the suppression of the sign-language in the playrooms and playgrounds of deaf children under oral instruction being opposed to

their instincts, inimical to their happiness, and detrimental to their moral and intellectual development, we regard such a measure as a system of tyranny. (2) That the total separation within the one Home of one class of deaf children from another (except where that arrangement is only of temporary duration, as a provision against such incidents as the occurrence of gross misconduct or the introduction of infection) is, in our opinion, devoid of religious, moral, or social sanction.

Publications.—We have received the following publications:

ADDISON, W. H. *The Present State of Deaf-Mute Education.* Glasgow, 1898. 8vo., pp. 15.

GÓMEZ, DR. FRANCISCO VASQUEZ. *Informe de la Visita que hizo a algunos Establecimientos de Sordo-Mudos de Europa y los Estados Unidos* [Report of a Visit to Some Schools for Deaf-Mutes in Europe and the United States (especially the National Institution at Paris)]. Mexico, 1898. 8vo., pp. 32.

GORDON, DR. JOSEPH C. *The Difference Between the Two Systems of Teaching Deaf-Mute Children the English Language.* Washington, D. C., Volta Bureau, 1898. 8vo., pp. 4.

HITZ, JOHN. *International Reports of Schools for the Deaf. Reports from Argentina, Australia, Brazil, France, Germany, Great Britain, Hungary, India, Italy, Mexico, Norway, Russia, Servia, Sweden, Switzerland, and Turkey.* Washington, D. C., Volta Bureau, 1898. 8vo., pp. 27.

HUBBARD, GARDINER G. *The Story of the Rise of the Oral Method in America, with an Introduction by Mrs. MABEL GARDINER BELL.* Washington, D. C., 1898. 8vo., pp. 49.

MASHBURN, A. G. *Some Differences in the Education of the Deaf and the Hearing.* Little Rock, Ark., 1898. 8vo., pp. 15.

AMERICAN ANNALS OF THE DEAF.

VOL. XLIII, No. 6.

NOVEMBER, 1898.

LIFE'S MYSTERIES FOR DEAF CHILDREN.

IN these days of child study and investigation into the workings and growth of the child's mental life, every conceivable question seems to have been asked and many phases of child life have come under the critical analysis of interested investigators ; but all results have not proved satisfactory.

Scientific men have come down from their pedestals of learning and been baffled in their scientific theories of life and its mysteries by an atom of humanity but a few hours or days of age. They have handled the small creatures as they would have handled an interesting and unknown plant, but each day their well-established theories have been most beautifully upset by some act or word of a small being to whom the world is new, and who seems to have been created for the sole purpose of puzzling the sages to whom the world is old, whether counting by the years that have passed over their heads or the thousands of years that this planet has revolved in space. The future holds little of significance to them, the past is fraught with events of interest, yet the time comes that a child, the most marvelous of God's creations, not only lifts for them the veil of the future, but opens the gates of Heaven, and they catch a glimpse of the realities of both ; for nothing is so near Heaven as a little child.

Those who incline to a belief in a reincarnation of human souls watch and experiment, question and delve into the workings of the infant mind before them, endeavoring to discover that which may have existed before the present life began.

Others attempt to ascertain the gradual development of the mind and soul that look out upon a strange world for the first time.

Do infants think? Do they enter upon life here with a celestial language of their own, that we, heavy earth-clodden mortals, forgot long, long ago? Look into the depths of their wide, wondering eyes from which has not yet faded the light of Paradise. What would it profit us if we knew? Thus the wise men and women question, and blunder along blindly in their vain attempts to solve the problems propounded by themselves.

The first conscious attempts of children personally to investigate their surroundings and belongings is recorded, and then they move slowly onward in their study of the human wonder growing gradually beneath their eyes.

With children who are blessed with all their faculties the study becomes intensely interesting; their wonderful powers of acquisition, imitation and reasoning, and later questionings, never allow interest to flag.

Most extraordinary would be the circumstances surrounding a normal child of average educated people, which could prevent it passing many years without gleanings some information of a Supreme Being. But some children are born deaf and others are bereft of hearing by disease or accident while mere infants. In such cases it is quite possible for them never to have learned of such a Power. Many a profound student has endeavored to ascertain if a child placed under these adverse circumstances has any conception of God.

There stands before you a child, to all outward appearance as other children are, but its ears are stopped

and its tongue is silent. Silent only because sounds have never penetrated to its brain, and it can have no realization of spoken language. Does such a child think? has been repeatedly asked.

Language is not necessary to thought. Words are but a covering or a vehicle for thought.

The child sees; it has a mind and a soul; it acts, therefore it must reason. It loves and it hates. It rejoices and grieves. There is other language than that of words—the language of deeds and expression.

It would appear from many years of investigation that the congenitally deaf and dumb have no conception of a Creator, though some are known to entertain a vague questioning as to the power which creates. Their minds are as active as those of normal children, but they do not deal with the abstract. The seasons come and go; it is warm because the sun is, cold because of the snow. It is light owing to the presence of the sun, dark because of the absence of that luminous body. With the greater number the sun and moon are the same object; in the daytime the sun is large, at night it is usually small. These two planets and all the constellations play a most important part in the lives of these children, probably impressing them more strongly than anything else besides the night. Some entertain a fear of them and have a great horror of darkness. Like the celebrated colored preacher, Jasper, they think "the sun do move," and their amazement when taught differently is very great. They marvel why the trees and houses and everything else do not fall off the earth in its revolutions around the sun and its axis, and cannot in the least understand why earth, sun, and moon do not collide.

Before they have received some instruction it is extremely difficult to make them understand what it is desired to ascertain, but some information of interest has been gained by watching them while at play alone, or with companions.

Most decidedly they are capable of thought, though it may not be deep nor prolonged. Deaf-mutes are by no means hampered for lack of ideas, but for lack of some means of expression.

This means is given them as soon as they are admitted to a school for the deaf. Here they very quickly master the methods of communication in common use among their companions, and by the time they have spent a year in school their overburdened minds begin to find free vent for their insatiable desire for information. Those who are adepts in the language of gesture, with which the deaf and dumb most freely and naturally express themselves, have no difficulty in understanding them. But the possibility of answering them satisfactorily is another matter altogether.

It would seem as if their release from an irritating thralldom of silence had left some of them with a double amount of avidity for information, for they proceed to investigate and question with a persistency that should put to shame adults who are blessed with all their faculties.

One never realizes to the fullest extent their deplorable ignorance until these children, doomed to silence, with their newly-awakened sensibilities and keenly investigating infantile minds, begin to ask questions. And such questions! King Solomon must have been puzzled sometimes, could some of our little deaf people have tackled him. Their questions cover an extensive range. Man, the animal kingdom, the mineral and vegetable kingdoms, all natural phenomena, all things which walk, run, swim, creep, or fly, that have ever been brought to their observation, the visible and the invisible, the known and the unknown works of God and of man.

Whatever is evident to the senses of sight and feeling some active mind is very certain to puzzle itself about, and the next step is to puzzle the teacher. One needs to be a physician, chemist, botanist, astronomer, theologian,

mechanic, geologist, and scientist to answer satisfactorily many of their questions; at the same time one must become as a little child again to appreciate the mystery of life, the wonders of the universe, and be able to see them from the point of view of these little people, who have just discovered a language by which they can express themselves so as to be understood by the persons surrounding them.

It is interesting to note the difference in the questions propounded by a city and a country-bred child. The first generally has an insatiable desire to see the inside of everything and to know "what makes the wheels go round;" while the other most frequently asks questions regarding things brought to its notice in the great world of Nature.

Children have been accused of vindictive cruelty who have only followed their great desire to see the inner parts of things and to discover what made them move. Take the case of a little deaf boy who kept his teacher in an uncomfortable state of suspense as to the contents of his pockets, and the queer parcels he brought her for inspection almost daily, ranging from a dead kitten which he had drowned with the garden hose, while trying to manufacture a pond for it to swim in, to a good-sized garter snake that was very much alive. He wanted to know why the kitten did not swim and how the snake ran without any feet. Having learned the why and how of things, he had no farther interest in them and proceeded to find new curiosities. When taught that it hurt flies to have their wings pulled out, and that the little birds cried if their nests were destroyed, a more valiant defender of the small creatures could not have been found.

Children coming from crowded manufacturing districts have had little opportunity for observation of anything beyond their immediate surroundings. They expect to see wheels, belts, engines, and workmen everywhere they go, and take it for granted that everything has always

been in existence, and that what is not visible now will doubtless soon come from one of those great machines, in one of those big buildings, with which they are so familiar.

A small class of deaf children, in a Western city, one day became possessed with an intense interest in the telegraph poles that stood near the school-house. They were observed one recess with their hands and faces pressed closely against the poles. It was afterwards discovered that they had been listening to the vibrations made by the humming and buzzing of the wires. One of the first questions was if there was something inside the poles. The next observation was in relation to the wires, one little fellow remarking that they were too high to hang clothes upon, whereat another suggested that they were put there for the little birds to sit on.

Their teacher's attempt to explain the use of the telegraph, while lucid enough to an adult mind, was beyond their comprehension, as was proved during noon recess, when the whole class were found squatting on the curbstone with their faces turned heavenwards, while they munched their luncheons. Their explanation was that they were watching to see the letters go over the wires.

These same children had never seen fruit nor vegetables growing, and took it for granted that everything they ate was made by some of the machines with the sight of which they were so familiar. Having never seen a live fowl, they had not the remotest idea where eggs were procured—unless they were manufactured at the corner grocery.

Some asked if milk was not white water, but as to its source of supply their knowledge did not go beyond the milkman's can. One small girl, who had once visited the country, told them she saw a man squeeze it out of a thing like a horse with horns and a long tail, but she added that she liked the milkman's milk the best.

Rarely having seen young animals other than a kitten

or a puppy, the unusual sight of a gawky, long-legged colt threw them into ecstasies of delight and wonder, and one child at once gravely inquired if it grew on a tree; but a companion laughed at him and informed him he had seen one made by a man down town.

A picnic to a park some distance out of the city was the first glimpse some of these children had ever had of the country; until then, the world, that is their world, and all it contained was the handiwork of men.

The growing trees and grass, the boundless blue sky, the clouds that floated overhead, the placid water of a miniature lake, were all objects of much wonderment to them. "Did a man stick the trees into the ground?" "Why do not the white things up there (the clouds) fall down?" "Where is the water hydrant?" "Can't I wade in the water?" "What is that thing in the water?" (A fish.) "Will it bite?" "Who made it?" "Where are its legs?" "What makes the ground green?" "Can I eat the green stuff?"

When two of their companions were drowned before their eyes, it appeared to make slight impression upon them; they had never seen death in that form and could not realize what it meant.

These city children early learned the value of money, and became adepts at trade and barter. No street-car conductor could impose upon them when it came to a question of dimes, nickels, and pennies. They appeared to have an instinctive understanding of addition and subtraction, and theirs was of the most practical kind of every-day arithmetic.

With more favored children the difference in observation and investigation is most marked. It is those who have had the freedom of orchard and field, who have grown as nature meant they should, that are the most observant and inquisitive regarding their surroundings. They realize there is some Power other than man behind these things which puzzle their small brains.

The children who have attended school two or three sessions are most prolific of questions, as a rule. They have begun to understand and acquire the ability to use the language common among their fellows.

No class of children have a greater reverence for all ceremonies of a religious nature or pertaining to religion than have the deaf and dumb; probably because they have never heard religion or religious matters discussed flippantly and ridiculed. None will follow their instructors more by faith and less by reasoning than will they.

Their belief in the greatness and goodness of God is sublime. Anything referring to the Creator or the unseen world appeals most strongly to them, and it is most frequently the theme which arouses in them the greatest desire for information. Unable to read or comprehend the Bible for themselves, they drink in every word that is read to them with a devotional fervor that is impressive. They are taught to keep the Sabbath day holy, and it is one of the things that they never forget in after life. The beautiful story of the crucifixion will hold them spell-bound, and when graphically told them by pantomime, will keep their interest until the close; it is a narrative of which they never tire. Indeed, all Bible stories have a great interest for them.

They are passionately fond of all kinds of stories, having been denied the solace of books and the pleasures of hearing; but as they grow older and acquire a command of language, to many of them books become of paramount interest and importance.

They can conceive Christ as having been a man, like men they see daily, but "What is God?" they ask. "Where is God?" asks another. "Who made God?" "What was God before He was God?" "Can you see God?" "Why can you not see Him?" "Can He see us?" "Has He eyes like us?" "If I am bad will God know it?" "Has he got a big book and does

he mark me if I am bad?" asked one urchin whose teacher kept a record in a book. "Where does He live?" "Why don't He fall down from the sky?" "Did you ever see God?" "Did God make me, you, everybody?" "How did He make us?" "Is God a man or a woman?" "Did He make everything; the houses, the trees, my clothes, my books?" "You said He made everything; but if He did not make the houses, my clothes, and my books, He did not make everything," one argued. "What is the sky?" "Are the clouds snow, cotton, feathers?" "Where is Heaven?" "Did I come from Heaven?" "Did you ever go to Heaven?" "Why don't you go?" "Why can we not fly?" "What is a soul?" "Is my soul like my body; can my soul see?" "Why will not my body go to Heaven?" "Is it cold in the grave?" "What makes people die?"

Once, when a flower was used as an illustration of life, death, and the resurrection, a little girl exclaimed, "Yes, I know. We go to sleep; we are planted in the ground; then we grow and have wings and fly away to Heaven." At which explanation her companions nodded their small heads sagely. It happened that a short time afterwards the child lost a favorite brother, and when the sad news was told her, her grief was very great. Thinking to comfort her she was reminded of her illustration. The following autumn she returned to school in high spirits, and told her teacher that Willie had flown away to Heaven—she knew, for there was a hole where his grave had been. Death, though a great mystery to them, is not terrible; they ask many questions about it, but on the whole consider it only as a falling asleep.

"Shall I die?" "Will you die?" "What is death?" "Why must we die?" "What is an angel?" "Has an angel wings like a bird?" "Can an angel fly?" "Did you ever see an angel?" "Shall I have wings?" "Are my wings growing now?" (At this stage of the proceed-

ings there is usually a feeling of shoulder blades.) "Do angels eat things and wear clothes?" "Why don't you know?" (One little lad decidedly objected to Heaven, because he had been told there was nothing to eat there.) "Shall I hear and speak?" "How do you know?" Their desire to be able to hear and speak is very keen.

The smaller children's conception of Heaven appears to be colored by their local surroundings; they do not seem to be able to imagine a place where there are no clouds, rain, snow, and other phenomena to which they are accustomed.

While life is generally very full of happiness for them, they have no dread of its end. The death-bed of a deaf and dumb person is almost invariably the scene of a peaceful passing away, unless the end is accompanied by great physical agony, for they have been spared so many of the jarring discordances of life and the strifes that follow in their wake.

The fear of the moon has played considerable part in the early life of some of these deaf children. Not all are able to remember or to describe their dread of that object. But a young girl who retained a lively recollection of her early childhood gave some interesting information. One evening she discovered that the man in the moon was engaged in making faces at her, and she at once tried to outdo him at the trick; not succeeding, she became very angry.* For a long time afterwards she hated the sight of the moon and wasted much energy throwing stones at it; failing to drive it away, she tried to hide from it. The custom of the other members of the family, when reproving her, was to point upward and shake their heads sorrowfully, to signify that she would not go to Heaven if she was bad; they would then point downward and nod vigorously, signifying she would go to the other place. Of course she was unable to make them understand her

* Compare the recollections of Mr. d'Estrella, *Annals*, xxxv, 80.

aversion to that object above, so she always most vehemently protested that she would not go up, but she would go down. She had not the least idea what they meant; they on their part were mystified at her display of obstinacy. In her eagerness to discover what they so strongly disapproved of beneath, she made a point of investigating every well and other hole in the ground that she could find, with the result that she had some very thrilling adventures.

A small boy once declared the sun fell into the water when it set, and he spent hours waiting to see the water sizzle when the sun struck it, as he had seen a hot coal dropped into a bucket of water with that effect. The moon rising above the water was to him only the sun returned.

Some of these little ones have most beautiful ideas of the things which surround them. One child asked if the stars were angel's eyes winking at the people. A little colored boy called them "God's fire-flies"; another asked if they were windows in Heaven for God to look down through. Still another suggested they might be little lamps for the angels to see by as they flew up and down at night.

"God is angry and stamping on the floor," remarked a little boy when an unexpected crash of thunder startled him; he evinced no fear of the lightning which followed. To a small maid the rainbow was the ribbons the angels wore.

During the kite-flying season, a kite, belonging to a little fellow, became invisible, and his teacher was assured that now God knew he was a good boy because he had written it on his kite that went up to Heaven.

"Does God understand everybody?" one asked. "How can He see me think?" "What makes the grass green; sky blue; water blue; one flower red and another white?" "Why is an apple sweet and a lemon sour?" "Why do

not potatoes grow on trees?" "What is that red water that runs out when I cut my hand?" "What made it red?" "How did it get into me?" "Did I grow from the ground?" "Where did they buy the baby?" "Why has a baby no teeth or hair?" "How did the angels bring the baby?" "Was everybody a baby?"

Their observation is very keen, and they are quick to form conclusions, not always quite correct.

Their investigations as frequently lead them into trouble as normal children with abnormal bumps of curiosity, as exemplified by a small scamp whose meddling with a bumblebee's nest led him to declare they had pins inside of them; and a small woman who meddled with a wasp was very positive wasps had teeth, for one had bitten her.

Never having heard, they have no knowledge of sound, though some are so sensitive to vibrations as to mistake them for sounds. It has often been asked if the deaf ever dream of sound. It is an extremely rare occurrence even among those who have lost their hearing in childhood or youth. Waking or sleeping they seem doomed to an absolute silence. It would be equally interesting to know whether the congenitally blind ever see in their dreams and what can be their idea of color.

Those who have lost hearing, while having ears sealed to the sounds about them, live amidst others that memory has stored up. Every person who speaks has voice for them. The birds that flash through the air leave a whirr of wings, the leaves fluttering in the breeze rustle softly, the lapping of the wavelets on the shore swish-swash, and the ocean's waves roar and boom as they come tumbling up the beach; everything animate furnishes its quota of sound. The crash of a drum and the blare of trumpets are recalled by the sight of a band. In turning the leaves of a book fancy recalls the rustle that they make and a pen scratches in its rapid course over paper. A woman in silk skirts brings to mind the soft *frou-frou*.

They can hear the patter of the raindrops, the soft cooing of a happy child, the shouts of merry children, the sobs of the mourning, and the moans of the suffering. The bells that solemnly toll for the dead, or clang a wild alarum; those that tinkle, tinkle gently, or ding-dong with brazen tongues,—all these sounds and many others can be brought back, almost at will, by many who have once been permitted to hear. So merciful is memory; but in its magic echoes is there more of joy than pain?

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THE ELEVENTH CENSUS.—II.*

CONGENITAL AND ADVENTITIOUS DEAFNESS.

THE statistics concerning congenital deafness and the age when deafness occurred are much more complete for this census than for any previous one. Of the 40,562 persons reported as "deaf and dumb," 16,866, or 41½ per cent. of the whole number, are reported as congenitally deaf; 15,399, or 38 per cent., as not congenitally deaf but as having become deaf under five years of age; 3,262, or 8 per cent., as having become deaf between five and ten; 1,319, or 3 per cent., as having become deaf between ten and twenty; and 358, or 0.9 per cent., as having become deaf at twenty years of age and upward; while for 3,358, or 8 per cent., the age when deafness occurred was unknown.

Excluding those for whom the age when deafness occurred was not reported, the ratios for each of the above classes are as follows: congenitally deaf, 45 per cent.; not congenitally deaf, but deaf under five years of age, 41 per cent.; deaf between five and ten, 9 per cent.; deaf

* Continued from the June number of the *Annals*, page 247.

between ten and twenty, $3\frac{1}{2}$ per cent.; deaf at twenty and upward, 0.9 per cent.

If the 145 persons reported as "congenitally deaf but not dumb" (see the June *Annals*, p. 241) were added to the category of the congenitally "deaf and dumb," their addition would not materially increase the ratios above given for that class. These ratios are low as compared with those found in other countries. The average ratio of congenital deafness given by recent censuses of twelve European countries, containing an aggregate of 100,326 deaf-mutes, was 74 per cent. These ratios are also lower than that of the census of 1880, which, out of 22,473 cases of deaf-mutism, reported 12,155, or 54 per cent., as congenitally deaf.

Among the "deaf and dumb" found in schools, the proportion of congenital deafness is still smaller than for the whole country. Though the total number reported (6,153) is comparatively small, the returns, which are compiled by the school authorities from their own records, are probably more accurate than those gathered by the census-takers. For each of the several classes above recorded the ratios of the deaf in schools are as follows: congenitally deaf, 42 per cent.; not congenitally deaf, but deaf under five years of age, $49\frac{1}{2}$ per cent.; deaf between five and ten, $7\frac{1}{2}$ per cent.; deaf between ten and twenty, 0.6 per cent.

If we add to the "deaf and dumb" found in schools the 721 persons in schools reported as "deaf but not dumb," only 145 of whom were reported as congenitally deaf, the ratio of congenital deafness in schools is still further reduced, being only 38 per cent.

Though the adventitiously deaf outnumber the congenitally deaf, the proportion of persons over thirty-five years of age is greater among the latter class than among the former. This indicates that the congenitally deaf have a lower death rate than the adventitiously deaf. For

the whole class of the "deaf and dumb" the death rate is very high for the ages from ten to thirty (17 per cent.), and very low for the ages from thirty to fifty (4 per cent.). The latter is ascribed by Dr. Billings, in part at least, to the immigration of deaf-mutes.

As in all previous censuses, it is probable that a large number of deaf-mutes under ten years of age are not reported. The proportion of the "deaf and dumb" under ten years of age reported is only $13\frac{1}{4}$ per cent., while the proportion between ten and twenty years of age is 27 per cent. That they were not fully reported in 1880 is shown by the following comparison of the censuses of 1880 and 1890. "In 1880 there were reported 5,194 deaf-mutes as being under ten years of age. The survivors of this group should be found in the age group ten to twenty in the census of 1890, but in this age group we actually find 10,905. This would indicate either an enormous addition to the deaf-mutes by immigration, or a great deficiency in the count of deaf-mutes under ten years of age in 1880, which last is probably the true explanation of the discrepancy."

Of the 71,351 "deaf but not dumb," concerning whom the age when deafness occurred is given, 53 per cent., or over one-half of the whole number, were reported as becoming deaf between the ages of twenty and fifty years. For the other age periods the percentages were as follows: Under five years, 0.6 per cent.; five to ten years, 8 per cent.; ten to twenty years, 14 per cent.; fifty years and over, $24\frac{1}{4}$ per cent.

CAUSES OF DEAFNESS.

Of the total 40,562 persons reported as "deaf and dumb," 16,866 were reported as congenitally deaf, and for 5,519 the cause of deafness was not stated. Of the remainder, 16,769 cases were ascribed to disease, 1,261 to

accident, and 147 to quinine. The assigned causes of deafness were as follows :

Inflammation and abscess of the ear.....	1,033
Other diseases of the ear	157
Smallpox.....	72
Measles	1,021
Scarlet fever.....	4,799
Diphtheria.....	222
Whooping-cough.....	361
Mumps.....	106
Malarial and typhoid fevers.....	771
Paralysis.....	132
Scrofula	337
Meningitis	3,278
Hydrocephalus	61
Other diseases of the brain.....	220
Diseases of the throat and air passages.....	1,354
All other diseases.....	2,845
Blows and falls.....	671
Other accidents.....	590
Quinine.....	147

Scarlet fever is the most frequently assigned cause for deafness, including more than one-fourth of the whole number for whom the causes are reported. Next comes meningitis and hydrocephalus, being about 18 per cent. Other percentages are : Diseases of the throat and air passages, $7\frac{1}{2}$ per cent.; measles, $5\frac{1}{2}$ per cent.; malarial and typhoid fever, 4 per cent.; scrofula, 2 per cent.; whooping-cough, 2 per cent.; diphtheria, 1 per cent.; mumps, 0.6 per cent.; accidents, 7 per cent.

In the returns from the schools for the deaf, the proportion of cases assigned to meningitis and hydrocephalus (33 per cent.) is greater, while for scarlet fever (18 per cent.) it is less than those for the "deaf and dumb" of the whole country.

Comparing the causes assigned for deafness among males and females, scarlet fever, measles, whooping-cough, scrofula, and smallpox are reported to have caused a greater proportion of cases among the females than among the males, while meningitis and hydrocephalus caused a greater proportion of cases among the males than among the females.

The proportion of cases due to scarlet fever was about the same in 1890 that it was in 1880, while the proportion of cases due to meningitis and hydrocephalus was strikingly less than in 1880. The proportion of cases due to diseases of the throat and air passages, inflammation and abscess of the ear, measles, scrofula, diphtheria, quinine, and mumps was greater in 1890 than in 1880.

The proportion of cases due to scarlet fever was much greater for the whites than for the colored population. The proportion of cases due to accidents was much greater for the colored than the whites.

For the 80,616 "deaf but not dumb" the cause of deafness was reported as unknown for 24,730, as congenital for 145, as caused by disease for 40,523, by accidents and injuries for 6,729, as resulting from military service for 7,484, and as due to quinine for 1,005. The percentages of the various diseases assigned as causes for the "deaf but not dumb" differ much from those assigned for the "deaf and dumb." Diseases of the throat and air passages stand highest in the list ($14\frac{1}{2}$ per cent.), and malarial, typhoid, and other fevers come next ($8\frac{1}{2}$ per cent.); scarlet fever is assigned as the cause for $7\frac{1}{2}$ per cent. of the cases, and meningitis and hydrocephalus for $0.7\frac{1}{2}$ per cent. Accidents account for 12 per cent. and military service for $13\frac{1}{2}$ per cent.

THE DEAF IN SCHOOLS.

On the day the census was taken (June 1, 1890), 6,153 "deaf and dumb" and 721 "deaf but not dumb" were

found in schools for the deaf, making a total of 6,874 deaf persons at school. This is less than the number reported in the *Annals* as having been present at school on December 1, 1889 (7,331), in which, moreover, the pupils of two schools were not reported, and it is less than the number reported in the *Annals* as present December 1, 1890 (7,546), in which the pupils of one school were not reported. This discrepancy is partly due to the fact that only the pupils of residential schools or institutions are included in the census returns; those of day-schools are ignored. From several of the schools, also, some pupils seem to have dropped out in the course of the year, so that though they were present December 1, 1889 and 1890, they were absent June 1, 1890.

Dr. Billings gives the following table as showing for the United States the total number of the "deaf and dumb," the number between five and twenty years of age, the number in schools, the ratio of the number in schools per thousand of the total deaf and dumb, and the ratio of the number in schools per thousand of those between five and twenty years of age, with distinction of sex and color :

Sex and color.	Total deaf and dumb.	Deaf and dumb between 5 and 20 years.	Deaf and dumb in schools.	Ratio of deaf and dumb in schools to 1,000 of total deaf and dumb.	Ratio of deaf and dumb in schools to 1,000 between 5 and 20 years.
Total	40,562	15,371	6,153	151.69	400.30
Male.....	22,411	8,465	3,470	154.83	409.92
Female...	18,151	6,906	2,683	147.82	388.50
White	37,447	13,943	5,910	157.82	423.87
Male.....	20,639	7,658	3,307	160.23	431.84
Female....	16,808	6,285	2,603	154.87	414.16
Colored	3,115	1,428	243	78.01	170.17
Male.....	1,772	807	163	91.99	201.98
Female....	1,343	621	80	59.57	128.82

If the 721 "deaf but not dumb" who were in the institutions in 1890 and the pupils of the day-schools were added to the statistics of the above table, as they ought to be, the showing would be more favorable for the state of the education of the deaf in America, but the figures would still indicate that only about half the deaf between five and twenty years of age were at school in 1890. It should not be concluded, however, that all the remaining half were left to grow up in ignorance. Some had doubtless completed a course of instruction lasting several years before 1890, and some who were to receive such a course later had not yet entered upon it. To expect to find them all in school at one time would be to expect them all to have a fifteen years' course of instruction. That less than one-fifth of the colored "deaf and dumb" between the ages of five and twenty were at school shows a lamentable lack of education among this portion of the deaf. The greatest proportion of the children of school age found in schools for the deaf was among those of Irish descent, being about 66 per cent. For those of the whites whose mothers were born in the United States the proportion was about 40 per cent.; for those whose mothers were born in England and Wales, 49 per cent.; for those whose mothers were born in British America, 34 per cent., and for those whose mothers were born in Germany, 45 per cent.

THE DEAF IN CITIES.

It is sometimes asserted that the deaf tend to congregate in large cities, and this supposed tendency has been ascribed to the feeling of "clannishness" produced by their education in special schools, the use of the sign-language, etc. According to the Census of 1890 this tendency does not exist. The ratio of "deaf and dumb" found in cities containing 50,000 inhabitants and up-

wards was 487 per million of the population, being 527 for the males and 447 for the females. "This is considerably below the rate for the whole country, and indicates that there is no special tendency to the aggregation of deaf-mutes in large cities, but rather the reverse. They are more frequent in small towns and rural districts."* The ratios vary greatly for the different cities, ranging from 998 per million in Columbus, Ohio, to 197 in New Haven, Connecticut. The variations are probably largely due to the varying opportunities for remunerative employment suited to the deaf in the different cities.

The "deaf but not dumb" persons in large cities numbered 830 per million of population, being 840 for the males and 820 for the females. This was also much below the average for the whole country, which was 1,291 per million. A comparative table giving the ratios of the "deaf and dumb" and the "deaf but not dumb" in all cities of 100,000 inhabitants and upwards, side by side, shows that there is no correspondence in magnitude between the ratios to population of these two classes in the several cities.

OCCUPATIONS.

The occupations of 14,474 male, and 9,969 female "deaf and dumb," 15 years of age and upwards, are reported. The following table shows the number of males reported for the principal occupations, with distinction of color :

* The same fact was shown by the Census of 1880.

OCCUPATIONS.	White.	Colored.
Artists and photographers.....	29	.....
Bakers and confectioners.....	26	.....
Bookbinders.....	18	.....
Brick and stone masons.....	9	.....
Carpenters and cabinet-makers.....	547	6
Cigarmakers.....	113	.....
Clergymen.....	18	.....
Clerks.....	113	.....
Coopers.....	60	.....
Editors.....	13	.....
Engravers and jewelers.....	41	.....
Farmers.....	3,207	129
Fishermen.....	18	4
Gardeners.....	47	5
Laborers and farm laborers.....	3,154	554
Lawyers.....	12	.....
Manufacturers.....	41	.....
Machinists.....	64	.....
Mechanics.....	181	.....
Merchants.....	84	.....
Mill and factory operatives.....	129	8
Miners.....	74	.....
Painters.....	168	.....
Peddlers.....	33	.....
Physicians.....	16	.....
Printers and compositors.....	274	3
Railroad employees.....	15	.....
Sailors.....	10	.....
Servants.....	40	49
Shoemakers.....	490	13
Students.....	2,296	108
Tailors.....	140	.....
Teachers.....	93	.....
All others.....	1,886	136
Total.....	13,459	1,015

The following table shows the number of females reported for the principal occupations, with distinction of color:

OCCUPATIONS.	White.	Colored.
Artists and photographers.....	13	.....
Bookbinders.....	21	.....
Cigar makers.....	8	.....
Clerks.....	6	.....
Dressmakers.....	228	4
Fancy work and millinery.....	41	.....
Farmers.....	44	14
Housekeepers.....	624	33
Housewives.....	3,221	60
Laborers and farm laborers.....	62	216
Laundresses.....	40	29
Mill and factory operatives.....	73	.....
Physicians.....	3	.....
Printers and compositors.....	13	.....
Seamstresses.....	109	5
Servants.....	1,885	166
Shirt makers.....	3	.....
Students.....	1,590	57
Tailoresses.....	66	.....
Teachers.....	60	.....
All others.....	1,179	96
Total.....	9,289	680

Among the congenitally deaf there were 7 clergymen, 31 clerks, 3 editors, 2 lawyers, and 50 teachers.

Of the white males, 23 per cent. were laborers and farm laborers; of the colored, 55 per cent. Of the white females, 7 per cent. were laborers and farm laborers; of the colored, 32 per cent.

Of the occupations of the "deaf but not dumb" no report is given.

LITERACY AND ILLITERACY.

Of the 33,812 "deaf and dumb" five years of age and upwards, with respect to whom statistics of literacy and illiteracy were returned, 24,715, or 73 per cent., could

read and write, 649 could read but not write [?], 8,391, or 26 per cent., could neither read nor write, and 57 could read, but the facts as to writing were not known.

The illiteracy was greater among the congenital (32 per cent.) than among the non-congenital (19 per cent.), among the colored (70 per cent.) than among the whites (22 per cent.); among the females (27 per cent.) than among the males (24 per cent.); among those of advanced age (for example, of whites 65 years of age and upward, 32 per cent.) than among the younger (of whites from 15 to 25 years of age, 16 per cent.).

For the "deaf but not dumb" no statistics of literacy and illiteracy are given.

CONJUGAL RELATIONS.

There were a good many questions on the schedules of the census enumerators relating to the conjugal relations of the deaf and the results of their marriages, but the returns, owing probably to the difficulty of obtaining the information desired and the indifference and carelessness of the enumerators, were unsatisfactory. Comparatively little of the information gathered is given in the published report. There is a table showing the number of the "deaf and dumb" in the United States in 1890 of fifteen years of age and upward in each of certain age groups, who were single, married, widowed, or divorced, with distinction of congenital and non-congenital deaf-mutes, and of sex, color, and nativity.

Of the "deaf and dumb" fifteen years of age and upward whose conjugal condition was reported the total number was 29,621, of whom 16,461 were males and 13,160 were females; 27,557 were white and 2,064 colored; 11,913 were congenital deaf-mutes, of whom 6,528 were males and 5,385 females.

Of the 5,844 white male congenital deaf-mutes reported

4,130 (70½ per cent.) were single, 1,549 (26½ per cent.) were married, 154 (2½ per cent.) were widowed, and 11 (0.2 per cent.) were divorced. Of the 8,071 white male non-congenital deaf-mutes 5,412 (67 per cent.) were single, 2,458 (30½ per cent.) were married, 181 (2¼ per cent.) were widowed, and 20 (0.2½ per cent.) were divorced.

Of the 4,860 white female congenital deaf-mutes 3,306 (68 per cent.) were single, 1,252 (26 per cent.) were married, 293 (6 per cent.) were widowed, and 9 (0.2 per cent.) were divorced. Of the 6,366 white female non-congenital deaf-mutes 4,007 (63 per cent.) were single, 1,935 (30½ per cent.) were married, 402 (6 per cent.) were widowed, and 22 (0.3 per cent.) were divorced.

It appears from the above statements that the proportion of the married is greater among the adventitiously deaf than among the congenitally deaf.

Among the colored population the proportion of marriages is less than among the whites, being for the male congenital deaf-mutes 14½ per cent., for the male non-congenital 20 per cent., for the female congenital 13 per cent., and for the female non-congenital 13 per cent.

In each 10,000 single white males of the general population between fifteen and forty-five years of age there were 4.59 congenital deaf-mutes and 6.57 non-congenital deaf-mutes, or 11.16 in all, while in the same number of those 45 years of age and upward there were 18.87 congenital deaf-mutes and 14.82 non-congenital, or 33.69 in all. Of each 10,000 married white males between fifteen and forty-five years of age, 1.28 were congenital deaf-mutes and 2.23 non-congenital deaf-mutes, or 3.51 in all, while of each 10,000 married white males forty-five years of age and upward, 1.92 were congenital deaf-mutes and 2.76 were non-congenital deaf-mutes, or 4.67 in all.

No information concerning the conjugal relations of the "deaf but not dumb" is given.

DEAF RELATIVES.

Out of 25,471 of the "deaf and dumb" concerning whom reports were made as to the possession or non-possession of deaf relatives, 15,057, or 60 per cent. of the total reported, had such relatives. The proportion having deaf relatives was much greater among the congenitally deaf than among the adventitiously deaf. Of 14,039 congenital deaf-mutes, 10,108, or 72 per cent., had deaf relatives, while of 11,432 non-congenital deaf-mutes, 4,949, or 43 per cent., had deaf relatives. The proportion of the whites having deaf relatives (congenital cases, 74 per cent.; non-congenital, 44) was much greater than of the colored (congenital cases, 43 per cent.; non-congenital, 25).

The following table shows the numbers of the congenitally and non-congenitally "deaf and dumb," respectively, reported as having certain classes of relatives, and the percentage of each class to the total number reported :

	CONGENITAL.		NON-CONGENITAL.	
	Number.	Percentage.	Number.	Percentage.
Had deaf fathers	722	7.1	504	10.2
“ “ uncles	408	4.0	205	4.2
“ “ mothers	256	2.5	182	3.7
“ “ grandfathers	171	1.7	140	2.8
“ “ grandmothers	538	5.3	372	7.5
“ “ aunts	446	4.4	307	6.2
“ “ cousins	682	6.8	556	11.2
“ “ brothers	3,296	32.6	1,254	25.3
“ “ sisters	3,029	30.0	1,116	22.6
“ “ sons	200	2.0	133	2.7
“ “ daughters	183	1.8	115	2.3
“ “ relatives not specified.	177	1.8	65	1.3
Total	10,108	100.0	4,949	100.0

In 2,158 cases it was reported on which parental side the deaf relatives were. The following table shows the

numbers and percentages of relatives reported for the father's side and mother's side respectively :

	CONGENITAL.		NON-CONGENITAL.	
	Number.	Percentage.	Number.	Percentage.
Had relatives on mother's side.....	422	31.0	212	26.6
Had relatives on father's side	761	56.0	521	65.3
Had relatives on both sides	177	13.0	65	8.1
Total	1,360	100.0	798	100.0

No information concerning deaf relatives of the "deaf but not dumb" is given.

CORRELATION OF DEAFNESS WITH OTHER MISFORTUNES.

The following table shows the number of persons who were reported as afflicted with other misfortunes in addition to deafness. As there is a marked difference in some of these numbers for the years 1890 and 1880, we give the returns of both censuses :

CONDITIONS.	1890.	1880.
"Deaf and dumb" and blind.....	259	246
" " insane	409	268
" " feeble-minded	1,373	2,112
" " blind and insane.....	62	30
" " " feeble-minded.....	137	217

It will be observed that in the number who were reported as "deaf and dumb" and feeble-minded there is a marked decrease from 1880 to 1890, while in those reported as "deaf and dumb" and insane there is a marked increase. The numbers of the "deaf and dumb" and the blind are not essentially changed. Dr. Billings regards

the figures of both censuses as too small and the liabilities of errors in them as too great to permit of any deductions of value. He thinks, however, that there really was an increase in the number of those who were "deaf and dumb" and insane, while the decrease in the number of the "deaf and dumb" and feeble-minded may have been partly due to a more defective enumeration of these complicated cases in 1890 than was made, with the help of physicians, in 1880. Our own opinion is that the more explicit instructions to enumerators in 1890 led to the erroneous inclusion of fewer cases of the merely feeble-minded as both "deaf and dumb" and feeble-minded than in 1880.

Another circumstance bearing upon the correlation of deafness with blindness and feeble-mindedness is brought out in a table showing the ratio of the white congenitally "deaf and dumb," the white congenitally blind, and the white congenitally feeble-minded in each State and Territory of the United States. It appears from this table that in a general way the ratios of these classes increase or decrease together in the several States, though there are some marked exceptions to the rule, as for example in Vermont, where the proportion of the feeble-minded was highest of all, while it was fifteenth in the order of the magnitude of its proportion of the "deaf and dumb," and had but a medium proportion of the blind. Virginia and North Carolina stood highest in the ratio of the "deaf and dumb," and among the highest in the ratios of the blind and the feeble-minded. The States and Territories west of the Rocky Mountains had the lowest ratios of all three classes.

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halves? In six halves? etc. Let each pupil take the given number of half-disks, and put them together and see for himself. After a little, one pupil may do the work while the others look on.

Ask: How many whole disks in three halves? Give each pupil three halves and let him work it out and see. Some of them will do so at once and without any help or suggestion. Show them how to write the answer:

One and a half: $1\frac{1}{2}$.

Proceed to the addition, subtraction, multiplication, and division of halves, giving many problems like the following, and having each one worked out with the paper disks:

John has five halves, and I give him three halves: how many has he?

Let John show how many halves he has. Give him the three halves, so that all can see them. Then let him see how many whole ones he can make of the eight halves. The work on the slate may be done like this:

John has $\frac{5}{2}$.
 You give him $\frac{3}{2}$.

$$\frac{5}{2} + \frac{3}{2} = \frac{8}{2}$$

 He then has $\frac{8}{2} = 4$.
 He has four whole ones.

Henry has two and a half, and I give him three and a half: how many has he then?

Henry has $2\frac{1}{2}$.
 You give him $3\frac{1}{2}$.

$$2\frac{1}{2} + 3\frac{1}{2} = 5\frac{2}{2} = 5 + 1 = 6$$

 He has then $5\frac{2}{2} = 5$ and $1 = 6$.
 He has six whole ones.

In working out this problem, let him have two whole disks and a half-disk. Then give him three whole ones and a half-one. Make him first count the whole disks and

see how many he has ; and then see how many halves he has, and how many wholes can be made from them.

The method of teaching subtraction does not need particular explanation. Follow the general plan of at first subtracting from an improper fraction and then from a mixed number, still using the disks and our system of notation. There may be some hesitation when you ask your pupils to take a mixed number or a fraction from a whole number ; but it can be easily overcome by suggesting that they can cut one of their whole ones into halves and then subtract, or rather actually take away what they need.

In multiplication and division act the problems out with your disks and half-disks, and then make the half-disks into whole ones. Detailed directions are not necessary.

Next you must ask such questions as : What is one-half of seven ? Take seven whole disks and lay them in a row. Tell them you wish to cut them in half, and find out how many there are in each half. Do so. Show them the seven halves. Write : One-half of 7 is $\frac{7}{2}$. Ask how many whole ones are in 7 halves, and let them put them together and see. Show them that you actually do have the same number of half-disks—seven—in each half.

Show them farther that they need not cut each of the seven whole disks into halves, but that they can put one in one place, and another in another place, till they get to the last whole one, which must be cut in half to make an equal division.

Our next step will be to teach them to find three-halves, four-halves, etc., etc., of any number.

What is five times one-half of three ? Write the question in this form for the first few times, and afterwards explain that it means the same as : What is five-halves of three ?

Ask them to find one-half of three. When they have done so, point to the words "five times," and tell them to

$$\frac{1}{5} \text{ of } 3 = \frac{3}{5} = 1\frac{1}{5}$$

5 times

$$5\frac{5}{5} = 5 \text{ and } 2\frac{1}{5} = 7\frac{1}{5}.$$

After you get this far lay aside the disks for awhile, and use your cardboard objects, pieces of string, crayons, sheets of paper, measured lines, toy money, any and everything that you can divide or cut into two equal parts, and so give variety to your examples, and destroy the idea, which possibly some of them may begin to form, that round pieces of paper are the only thing to which fractions apply.

Tell them the name of the new fraction.

A third . One-third $\frac{1}{3}$.

Go through all the principles you have taught with halves, using thirds in the same way. However, as it is much harder to divide many things into thirds than it is into halves, make your exercises with promiscuous objects less numerous. Your children will not need nearly so many, as they will understand that as all the principles they learned from the disks about halves were true of

other things, so it is with those they learned about thirds.

Teach fourths in the same way. Give them the expressions.

A fourth, a quarter \square . One-fourth, one-quarter $\frac{1}{4}$. Use the names—fourths or quarters—often. Make them show you a fourth, and then a quarter. Tell them it is exactly the same thing, always, but has these two names. Hearing people are about as apt to use one as the other.

When you have finished the same course with these that you did with halves and thirds, you must take a step in advance. Take a whole disk and cut it in half. Ask the name of each piece. How many halves in one? Cut each of these halves into two equal parts. Ask the name of each piece. If they cannot tell you, show one of the quarters which you had before. Ask: How many quarters in a whole one? How many in a half? If we take away one, how many will be left? How many quarters in two halves? In three? etc. How many halves in two fourths? In four? etc.

After considerable drill on such questions, ask one like this:

John has one-half and I give him one-fourth. How many has he, then?

If you actually give him the things he will know how many he has, but will be puzzled to express his knowledge; but the suggestion that he cut the half into quarters will enable him to see that three-quarters is the right way to express what he has. Tell your pupils that whenever they add or subtract halves and quarters, they must always cut the halves in two, or change them to quarters. Lead them to see that in all these cases they will have exactly twice as many quarters as there were halves. Give them a large number of examples illustrating this, such as:

Henry has one and one-fourth disks, John gives him three and a half, and I give him one and three-fourths; how many has he?

The written solution of this would be :

$$\begin{array}{rcl}
 \text{Henry has} & 1\frac{1}{4} & = 1\frac{1}{4} \\
 \text{John gives him} & 3\frac{1}{2} & = 3\frac{2}{4} \\
 \text{You give him} & 1\frac{3}{4} & = 1\frac{3}{4} \\
 \hline
 \text{He has} & 5\frac{6}{4} & = 5 \text{ and } 1\frac{2}{4} = 6\frac{1}{2}.
 \end{array}$$

Examples in subtraction must be solved in the same way. If you illustrate each step by actually doing with your disks what you do on the slate, you will have no trouble. At the risk of being too simple I will tell exactly what I would do with the disks, when explaining the last problem.

"Henry has one and one-fourth disks."

Let Henry take one whole disk, and a quarter-disk, and show them to the class.

"John gives him three and a half."

Let John come and give him three whole disks and a half-disk, letting every one see them. Tell Henry that as he already has a quarter, he should cut this half-disk into quarters. Let him show the two quarters he gets from the half.

"I give him one and three-quarters."

Be sure that you give him three-fourths, and not a quarter and a half. Then ask him how many whole disks he has. Let him show the five to the class. Ask how many quarter-disks he has, and let him show them. How many whole ones can he make of these quarter-disks? Have him build it up and put it with the five whole ones. Call attention to the fact that there are now six whole ones and two quarters. Ask what they can make of the two quarters, and let all see that the final result is six and a half.

As a final exercise on fourths, have them cut from whole disks a fourth, a half, two-fourths, two-halves, three-fourths, three-halves, etc; cutting them in as large pieces

as they can, and always observing that any number of halves is twice as large as the same number of fourths.

In teaching fifths cut a pattern from thin cardboard. It will be better to have this a circle of the size you are using, with an exact fifth part cut out of it, rather than a fifth part of such a circle. The only other point is that for the sake of clearness we will always write our sign for a fifth— \triangle . We have always turned the fourth the other way, and by turning the fifth this way it will always be plain, even if we sometimes happen to make it a little larger than it ought to be.

To begin to teach sixths, hold up a disk, and ask what each part is called when you cut it into three equal parts. How many parts will there be if I cut each of these three parts into two equal parts? What is each part called? If I take away one, how many will be left? Two? etc., etc.

Go through exercises similar to all those which you had on halves. When you finish these, compare sixths and thirds, as you did quarters and halves. Give examples in addition and subtraction, but, for the present, do not give examples in which the results will reduce to halves.

After a few of these, compare in the same way sixths and halves. Give a few examples of their addition and subtraction. Then compare sixths, thirds, and halves. Show that all of these can be changed into sixths, because we can always cut a half into exactly three-sixths. Therefore we can always add and subtract halves, thirds, and sixths by changing all of them to sixths. We cannot cut a fourth or a fifth into an exact number of sixths:

Sevenths should be explained and illustrated in the same way that fifths were.

When we come to eighths, begin with the whole disk. Cut it into halves, then into quarters, and these into eighths. After going through the same drill as we did with halves, compare eighths and fourths, and add and

subtract. Then do the same with eighths and halves, and afterward with all three. Show why we can always change halves and quarters to eighths, and give some practice in so changing them. Show that thirds, fifths, sixths, and sevenths cannot be changed into eighths, because we cannot cut any one of them into any number of exact eighths. After this give some practice in the addition of halves, quarters, and eighths.

We have now carried our system of illustration by objects and our peculiar notation as far as either will be helpful. We may occasionally find it necessary, especially when we introduce a new fraction or a new operation, to go back to the disks and illustrate, but we will not have to do this very often, because our children have the habit of thinking of fractions as things, and have a clear mental image of them. Begin a general review of the whole subject. Ask how many halves there are in one whole. When they answer "two," tell them that we have used the character $\frac{1}{2}$ to represent a half, but that now they know so much about halves, that we are going to change. Instead of writing $\frac{1}{2}$, which means that a whole one has been cut into *two* equal parts, we will use the expression $\frac{2}{2}$, which means the same thing, the figure 2 showing how many parts the whole one was cut into. In the same way show that we can write $\frac{3}{3}$ instead of the pictorial expression we have been using, because in this case we cut the whole one into three equal parts; and so of each of the other signs we have used. The figure under a line, always shows how many equal parts we cut some whole thing into, and the figure over the line tells how many of these parts we take. Give some practice on these changes by making your pupils show you the proper part of a disk for written fractions, such as: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$, $\frac{3}{4}$, etc., etc.

Ask a question, such as :

What part of eight is two ?

Most likely your pupils will not be able to answer this

at first. If they do, it will probably be because they happen to remember from some former exercise that "one-fourth of eight is two," and not because they have reasoned it out now. Ask: What part of eight is one? Take a whole disk and eight counters. Tell them to divide the disk into eighths, and to put on each of these eighths one of the counters. The whole disk will then represent eight. What part of the whole eight is one? What part of the whole disk is one of the parts with one counter on it? Now we can try the first question. One is one-eighth of eight. Two is two times one. Two is two times one-eighth of eight, or two-eighths of eight. But two-eighths of the disk (showing them) are what part of it? One-fourth. Then two-eighths of eight are one-fourth of eight. Give enough of such problems to have the pupils solve them easily and quickly.

Review all the ground you have been over. Explain that when the portion of a disk representing one fraction can be exactly cut up into another we can change it to that other denomination, and that this will always be true when the denominator of the first fraction will exactly divide that of the second. Give a good deal of drill in thus changing fractions back and forth.

Carefully explain the denominators of fractions, one at a time, as far as twentieths, or possibly twenty-fourths. As each is given, make the pupils show by objects or by drawing the value of the different fractions, such as: $\frac{4}{5}$ of a disk, $\frac{3}{10}$ of a sheet of paper, $\frac{7}{11}$ of a line, $\frac{7}{12}$ of a foot, etc, etc.

Give examples in the addition and subtraction of these fractions, with such as will reduce to the same denominator any that you have taught, as often as you can.

After this ask your pupils to add one-half and one-third. This will probably puzzle some of them, because they cannot change a half to thirds. Ask them, then, to add $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{6}$. They ought to be able to do this. If

they cannot, ask them if they can change the half and third to sixths. If they do not then catch the idea, get out your disks and explain as you did before, showing that all these fractions can be changed to sixths, and then added. Then ask them again to add $\frac{1}{2}$ and $\frac{1}{3}$, and suggest that all they have to do is to leave out, in the example they have just done, all about the $\frac{1}{6}$. After they have finished show them that if they multiply the denominators together they will get the proper denominator; and also that the new numerators come from multiplying the numerator of each fraction by the denominator of the other.

Then ask them to add $\frac{1}{2}$ and $\frac{2}{3}$. Show them again that if each of the terms of each fraction be multiplied by the denominator of the other they will get the proper fractions to add, each having the same denominator.

Proceed to add thirds and fourths. If necessary, show them by objects that $\frac{1}{3} = \frac{2}{6}$ and $\frac{1}{4} = \frac{3}{12}$. Give a number of examples, both in addition and subtraction, and then bring in halves. Add and subtract, using all three often. Continue in this way until you have taken all the fractions as high as tenths or twelfths. I should not, however, at present, give examples that required a common denominator greater than twenty-four.

To multiply one fraction by another, begin by asking: What is one-half of one-half? Have a half-disk actually cut in two. What is $\frac{1}{2}$ of $\frac{1}{3}$? $\frac{1}{3}$ of $\frac{1}{2}$? $\frac{1}{2}$ of $\frac{2}{3}$, etc. Have a number of these questions fully worked out with objects, and immediately afterwards on the slate. Point out that the result is always the same as if they multiplied denominators by denominators, which is the same as dividing one fraction into as many equal parts as there are in the denominator of the other, and then multiplied the numerators, which is taking as many of those equal parts as there are units in the numerator of the other fraction.

Give some examples of the form: $\frac{1}{2}$ of $\frac{2}{3}$ of $\frac{3}{4}$, etc. At first have these multiplied out in full. Afterwards show them how to cancel. Impress upon your pupils that they cannot do this in addition and subtraction. Show them also how to reduce a fraction to its lowest terms. These operations can all be explained by disks, if you choose to do so, but it is hardly necessary.

The division of fractions should be carefully explained by questions and by cutting disks. How many times $\frac{1}{2}$ in 1? 1 divided by $\frac{1}{2}$ is how many? How many sixths in one? In one-half? In one-third? How many times $\frac{1}{6}$ in 1, etc.? 1 divided by $\frac{1}{6}$ is how many? etc., etc.

Show them that if they invert the divisor and multiply they will get the same result as they actually do by measuring off the divisor on the dividend and counting. You may, if you wish, show by objects that $\frac{3}{4} \div \frac{2}{4} = \frac{3}{2}$, but it will probably worry you, and be hard for your children to grasp. I should most certainly not try to do so. Do not give many such examples, and if you do, tell your children to follow the rule, awaiting greater development of the reasoning powers before trying to explain this.

I would also, perhaps, show them that complex fractions are simply a way of expressing the division of one fraction by another. These awful looking expressions seem to have a strange fascination for some children, and if you have any such in your class, it may be well to lift the veil from the mystery; but I should spend very little time in teaching them now, and in fact should here end the teaching of fractions for the present.

Denominate Numbers.

You need not wait to begin denominate numbers until you have finished fractions. I hope that you have already shown your pupils many of the weights and measures that

are in common use. After you get a good start in fractions, denominate numbers may be used to practice on, or as a change. I must insist very urgently upon your giving your pupils an intimate personal knowledge of these measures, weights, etc., or at least with one or two units in each table. Let them see for themselves that two pints make a quart, six inches are in half a foot, sixty seconds in a minute; that there really are sixteen ounces in a pound, that a quart dry measure and a quart liquid do not mean exactly the same thing.

Our children already know something of United States money, but I should begin and develop the table from the beginning. Use real coins for the first few lessons. Afterward the toy object money that is supplied by dealers in kindergarten supplies will do very well. Your children already know, or will understand by only a word of explanation, that these bits of pasteboard only represent money just as the cardboard pictures we used before represent things.

Show some pennies. Hold up one and ask its name. If the children say "Money," show them a number of different coins and bills, and tell them that all of these are money. If they say "a penny," ask for another name, and get them to say "a cent." Ask them to write it. Ask them how many you show, and get them to write: "A cent," "one cent," "1 ct.," and ".01." You will probably have to show them how to write this last expression. Explain it simply as a way of writing cents, and not as a decimal fraction.

Show two pennies, three pennies, etc., and have them write the different expressions. Continue till you get to ten pennies. Then show them a dime. Tell them its name and ask its value. They know this. Give some exercises, having them tell you how many cents in a certain number of dimes and pennies, as: "How many cents in 4 dimes and 2 pennies?" Show them the money,

and have them write: "42 cents," or .42. Call their attention to the similarity between dimes and the bundles of toothpicks we used before. Tell them that in speaking of money we never say "dime" or "dimes," except when we mean a silver coin. We say: "Can you give me five dimes for a half-dollar?" meaning that we want the large coin changed for five small ones; but we do not say: "A straw hat costs five dimes." Write on a card and hang up where they can always see it:

10 cents (marked "●") make 1 dime.

Show ten dimes and ask how many cents in them. Show a dollar and ask how many cents in that, and also how many dimes. If your pupils do not know the answer to either question, tell them one, and make them work out the other. Ask how we write one dollar, and get all three expressions "1 dollar, \$1., \$1.00." Explain that this last expression really means: one dollar and no cents.

Practice your pupils in writing amounts such as: a dollar and three cents, a dollar and fifteen cents, a dollar and seventy-five cents, six dollars and two cents, etc., etc. Make them tell you how many dollars and how many cents in such amounts as: three hundred and forty-five cents, etc., etc. Call attention to the fact that if we say dollars instead of hundreds we change these at once to the correct form. In using figures to express money we always put exactly two figures after the decimal point, or else none at all. If there are less than two figures needed to express the amount we wish we must put the figure 0 before the one we use; as: 7 cents = .07, never .7. Practice on this. Take down your card and write on it:

10 dimes = 100 cents make 1 dollar (marked \$.) Your table of United States money is finished as far as you will have any use for it for the present.

Teach the names and values of the other coins—two-cent piece, five-cent piece or nickel, quarter or quarter-dollar, half or half-dollar; and impress very strongly on

their memories by constant repetition the values of the fractional parts of a dollar. Use what you teach in your number-work constantly.

As you feel the need of variety in your work, take up the other tables. Take dry measure first. Have real measures, and let the pupils do the measuring themselves. Sawdust and sand, if clean, are both good things to measure, but if the work must be done in the school-room they make a great litter, so that possibly beans, oats, or even shoe-pegs might be better, but probably the best and most convenient way will be to take the class and measures to some convenient sand pile, and do your measuring there, even if you have to make several trips. Let the pupils find out for themselves not only that two pints make a quart, eight quarts a peck, and four pecks a bushel, but how many of each of the smaller measures will fill each of the larger. After this write the table as if it were something that you and your class had found out for yourselves, and hang it up.

At another time find out by actual measurement what part of a bushel one peck is, two pecks, etc.; what part of a peck one quart is, etc. At still another time add together bushels, pecks, quarts, etc., and subtract them from each other.

Next, you may take weight. Have a real pair of scales with the weights that usually come with them. These will probably be one ounce, two ounces, four ounces, eight ounces, and one pound. Get some sand or shot, or anything not too bulky, that can be easily and accurately divided. Weigh out an exact pound. Divide this into halves by weighing one-half against the other. Show that each half weighs just eight ounces, by weighing each with the eight-ounce weight. Write, or have your pupils write—" $\frac{1}{2}$ lb. = 8 oz." Explain the abbreviations of course. Wrap up one-half pound, and mark it "8 oz., or $\frac{1}{2}$ lb." Put this one side. Have the other half-pound divided into two equal parts by weighing it.

Ask what we get when we divide a half into two equal parts. Weigh your quarter-pounds with the four-ounce weight. Have the children write—" $\frac{1}{4}$ lb. = 4 oz." Mark one of the quarter-pounds, and put it aside as you did the half-pound, and divide the other. Continue the process till you get a single ounce. Then ask how many ounces there are in a pound, and let them find out for themselves. Ask what part of a pound is one ounce, two ounces, etc. Weigh a number of things and have them change their weights to ounces, or from ounces to pounds. Take them to the sand pile and weigh out, and put into a bag or box, twenty-five pounds. Let each pupil lift it, or try to do so. Tell them that a bag like this weighs "a quarter"; and four such bags weigh "a hundredweight." Weigh each pupil, and let them change their own weights into quarters, and also into ounces.

Take some pains to find something that weighs a ton, and take them to see it. Tell them some of the things that we usually estimate by the ton, such as coal, hay, straw, bran, etc., and if possible show them a ton, or a known weight of each. Teach addition and subtraction at first by really weighing the two things together, or by weighing the greater first and taking out the less.

Teach long measure by actual measurement. Illustrate addition by measuring the different distances one after another along a line, and then measuring the whole line; subtraction by measuring the greater distance, then laying off on it the less, and measuring what is left. Make your pupils often guess the length, breadth, and thickness of different objects, and then measure them. They can lay off their guess on a slate or the floor, and measure the object and lay that off too, and compare the two. When in their reading or other studies the dimensions of objects are given, ask them if they know anything of the same size, or make them measure out the dimensions given.

Teach square measure by drawing on the slate or floor. Have them draw a square-yard, and divide each side into three feet, and actually draw and count the nine square-feet that make it. Let them do the same with a piece of carpet four feet by five, and really count the twenty square-feet. Go through with square-inches in the same way. Teach cubic measure with clay or building blocks. If with clay, cut a large cube of it into smaller ones; if with blocks, build up a large cube from the small ones. Teach time with one of the kindergarten dials, or better yet with a cheap clock. Let your pupils count the number of seconds in a minute, and of minutes in an hour, etc.

Make all of your instruction in the whole subject such that you can feel that your pupils really know the things you are talking about and figuring out. For instance, you can talk for weeks about a dry-measure quart being larger than the wine-measure of the same name, and you will hardly be able to make a lasting impression; but if you once let them try for themselves and see that the tin quart measure, which they use for liquids, will not fill the wooden one which they use for beans or potatoes, while the contents of the wooden one will cause the other to overflow, especially if you have some discussion on the question, and the children themselves make the trial, you will always find after that a clear and explicit idea of which of the two quarts is the larger.

Notation and Numeration.

Although the notation and numeration of numbers above a thousand is the beginning of a regular course in arithmetic, and hardly belongs to the primary course of number-teaching which we have been following thus far, still we shall probably have time to teach this subject thoroughly in the fifth year, especially if our pupils can read and write numbers below a thousand readily and

quickly. If they cannot do this, they must be taught it before they try to go any farther.

Begin your instruction by trying them with enough examples under a thousand to be sure that they know them well. Then put a number of six significant figures, as 649,275, on your wall-slate. Of course they cannot write its name, and most of them will not even try to do so. Write the figures 649, denoting thousands, in another place and ask them to write the number they represent. Then do the same with 275, and ask its name. Ask how they think it would do to write the two names one after the other, "Six hundred forty-nine, two hundred seventy-five," to express the whole number. If they are willing to accept this, and they may be, for it would really do if all numbers had significant figures in every period, ask what they are going to do when figures are written one under the other, as—

649

275.

Write down in a column a half-dozen numbers—all significant figures, and having from one to three figures in the thousands period. Point off. Make a bracket over the first three figures on the right, and over that write the word "units." Tell them we never write this word in writing the name of a number, because when there is no name, such as "thousand, million, etc.," written, we always know the name is "units."

Make a bracket over the next three figures, and write "Thousand" over it. Tell your pupils that we always write this word after the name of the figures under the bracket, to tell what they mean. If there are no significant figures under the bracket, we do not write this word at all. If we did not write "thousand" after the name of the figures under this bracket, we would suppose that they meant units. Take the first number you have in your column. Copy the figures representing thousands by themselves. Tell the pupils to write the name of

these figures exactly as if they were units. Then point to the bracket over them, in the whole number that you took them from, and to the word "Thousand," and tell them to write thousand after the name they have already written. Bring the other figures down beside those you have written, not forgetting the comma. Tell them to put a comma after what they have written, and then to write the name of the last three figures which you brought down. After this let the pupils take the numbers you have written, and write them down in figures, writing in the word "thousand" after the figures which are in the thousand's period, for instance:—649, 275, becomes "649 thousand, 275." When your pupils have written all the numbers in this way, have them substitute the written name for the figures.

After this, write another half-dozen numbers, and make each pupil do for himself what you did for them all at first, seeing of course that they do not make mistakes. Some of them will hesitate when they come to the first number which does not have three significant figures in the thousand's period, but a simple direction to write the name of the number for which the figures stand will set them right. Write figures on your slate, omitting the brackets and words, and have the pupils write the names. At first, use a significant figure in every place, and continue to do so until the children acquire considerable confidence. Then begin to use ciphers. Frequently these will hardly need any explanation, but sometimes they prove very puzzling. When they do, write all three of the figures on another part of your slate, and tell the pupils to write the name of those figures, just as they always have done, and then to add the word "thousand," or the name of the period from which they came.

Do not teach your pupils to say, "Units, tens, hundreds, thousands, tens of thousands, hundreds of thousands, etc., etc.;" but teach that each period of three fig-

ures has its own name. These names are: "Units" (which we never write), "thousand, million, etc." The three figures in any period show how many of that name there are; and these three figures are read just as any three figures that they have been using familiarly for so long are read. They show how many of that kind there are. After telling how many, we give the name of the period to tell what kind, except in units.

To teach notation, or the writing in figures from numbers expressed in words, begin by writing the name of any number requiring six significant figures, taking pains to make the comma after thousand very distinct, as: Three hundred forty-eight thousand, five hundred seventy-two. Ask how many thousands in this number. Draw a line under the words: Three hundred forty-eight. Tell your pupils to write that in figures. If they do not do so readily and easily, on another part of your slate write the names of several numbers, such as: Six hundred twenty-seven, two hundred thirty-six, etc., etc., making them write in figures as you write in words, until their confidence in their ability to write such numbers is restored. Finally, write "three hundred forty-eight" without saying or doing anything to call particular attention to it, and they will write it just as easily as they did the other numbers. As soon as they do, call their attention to the fact that they have done what you have been trying to have them do, and ask them to rub out all that they have written except this last. Then underline the word "thousand" and ask how this is to be shown in figures. Tell them that the comma and the three figures yet to be written on the right are all that are needed for this. Have them put the comma in, and write the other three figures. They will readily do this.

After dwelling on examples of this sort for some time, begin to give such as need ciphers, and also such as need less than six figures. Be sure and use a good many in which the last three figures must all be ciphers, and ex-

plain that they are used to keep the others in their place, and so to show that they are in the second period. Show them that if they were not used, the significant figures would not mean thousands. After drilling until you are sure that all of your pupils can write any number expressed by six figures or less, pass on to the third period, and teach it in just the same way. The case where there are no thousands will need some special explanation and practice, but can be easily explained. Have the class thoroughly memorize this table :

Billions	Millions	Thousands	Units (not written)
000	000	000	000

Impress on them again and again that three figures, and only three, must always be written in each period, except the one at the right hand. If three significant figures are not needed, enough ciphers must be put before what are needed to make the whole number three, counting both ciphers and significant figures.

You have now taught more arithmetic than I should expect of pupils who have only been in school five years. Devote any time you may yet have to review. Beyond this point, the methods of teaching arithmetic to the deaf do not differ much from those employed with hearing children, except that in beginning decimals you can save time by using the object method.

FRANCIS DEVEREUX CLARKE,
Superintendent of the Michigan School, Flint, Michigan.

[TO BE CONTINUED.]

HIGHER EDUCATION IN SCHOOLS FOR THE DEAF.*

WITH that most excellent College for the Deaf at Washington, and, as far as expense is concerned, the easy terms upon which the graduates of our Institutions can attend it, the question might be asked, "Why talk about higher education in our Institutions?" The answer is the same as was given to those who opposed the high school in all of our villages, towns, and cities, and who cried, "Our country is dotted all over with colleges; let those who wish a higher education go to those colleges and pay their own bills." It took a long and bitter struggle to convince the taxpayer that a high school was an economical and advantageous institution, in which his child could be prepared for college if desired, and, if not, could be the gainer of something of a higher education. But now you can scarcely find a man who does not look upon the high school as the pride of the community. He sees year by year his children and the children of the poorest and richest people graduating from it and going into the world equipped educationally to perform the duties of highest citizenship, and no one knows, asks, or cares who paid the bills. If these graduates wish to enter the universities, they pass to the Freshman class without examination, and thus the public schools and the universities are linked together in one grand chain.

So, in asking for a high school in our Institutions, we ask it for the same reasons that it is given to the children of the public school. It ought, therefore, to need no agitation. It only needs to be understood that the work in our Institutions is a part of the great school system, and that it is entirely educational in every particular;

* A paper read at the Round Table Session of the National Educational Association, Milwaukee, Wisconsin, July 7th, 1897.

and when this is once understood, the State will feel herself as much under obligation to give an opportunity to the deaf child for a high school education as she does to the hearing. What! Because one of my daughters is deaf, will the great State of Ohio offer her just one half the opportunity for an education that she offers my other daughter who hears? Such a proposition is unpatriotic and unjust, and the State would spurn such a thought.

I shall not undertake to discuss the necessity of a high school or the extent to which deaf children can be educated. I refer you to the valuable articles which have been published in the *American Annals of the Deaf* and the proceedings of the various conventions and conferences for the past forty years. I beg, however, to mention some of the efforts which the good men and women have made toward a higher education for the deaf, and after that, to discuss a plan for still raising the standard.

In 1851, at the second Convention of the American Instructors of the Deaf, William W. Turner, of Hartford, Conn., reporting for a committee, recommended the establishment of a High School, and strongly urged the feasibility of a separate institution at which all pupils of sufficient education from all the Institutions would be eligible to attend. While all agreed on the necessity for the higher education, they differed as to the proper plan of securing it, and so nothing was done. However, the next year the directors of the American Asylum adopted a plan for a high class in that Institution covering two years of study, the eighth and the ninth, and William W. Turner was placed in charge of it. The studies were Mathematics, Natural Philosophy, Natural History, and Grammar. In the same year Dr. Harvey P. Peet made an elaborate report on the higher education as he had seen it in France, and the Board of the New York School provided for a high class of the eighth and ninth years of instruction, including Drawing, Natural Philosophy, Natural

History, Algebra, Geometry, Logic and Moral Philosophy. Twenty pupils formed the first class. The work of both these classes is reported as being highly commendable. Soon after, the War of the Rebellion disturbed the work of progress, and but little is recorded until after the organization of the College in 1864.

In 1868, at the first Conference of Principals, Prof. Lewellyn Pratt, of the National Deaf-Mute College, read a paper entitled "The College and Its Relations to the Institutions." He urged the hearty co-operation of the College and the Institutions to the end that deaf-mutes might attain to a higher education. The Conference passed resolutions recommending the establishment of high classes in all the Institutions, and, as far as I have been able to ascertain, this has been done. But as the tenure of school was only five to seven years, and later nine years, the high class education must have fallen short of a high school education, as we now term it.

But in searching for information touching the scope and thoroughness of the work done in the '40's and '50's in the short period of five or seven years, I have found it highly satisfactory. I am not sure but that a comparison of work in the same period of time would put us all at a disadvantage. We admit our children at a younger age, and having before us a long ten or eleven or twelve years, possibly do not push matters as vigorously as was done when a shorter time was given each child in an Institution. If the children of the Hartford and New York Schools, in 1852, after a seven years' course, were able to comprehend Physics, Natural History, Mental and Moral Philosophy, Algebra and Geometry, what could their instructors have done for them in twelve years? Does any one doubt that these children could have mastered the ordinary high school course of our public schools? If so, he must doubt the word of such high authority as Dr. Harvey Peet and William Turner. For myself, I do not

doubt it. I believe with all my heart that our Institutions can be so managed and our school work so directed that where a twelve-year course is in operation, the last three years can be given in a large measure to higher work, and that our graduates can be prepared for the Freshman year in college. This would save the expense of maintaining an introductory department and enlarge the facilities for college work. Not only that, but it would give to the large class of our graduates who never attend college the same education that the hearing graduate receives in the public schools, and fit them proportionally for life.

I think I hear some one ask, "Do you expect us to do high school work and not extend the school term beyond twelve years?" I answer, Dr. Peet was clamoring for it when the term was only nine years. I think, in the first place, our schools can be worked up some from the bottom, and, in the second place, our courses of instruction can be enriched so we can teach some elementary science from the seventh year on. Our literary and historical work can be woven in with our language work to advantage, so that information of fact can go with the learning of language. In this way at least one year of high school work will be done before we enter the work proper. After a good foundation is laid by ten years of school work, the eleventh and twelfth years can be devoted to the studies of Rhetoric, Literature, Latin, Physics, Chemistry, Botany, Algebra and Geometry. By the careful prosecution of these studies under the direction of competent teachers, more progress will be made by the learner in the mastery of language than if he is kept constantly reviewing the simpler studies with which he is already familiar. The graduate from this course ought to be able to enter the Freshman class in college or else not be allowed to graduate.

It would seem advisable, and it is recommended, that

this Convention appoint a committee to compare the courses of study of the various Institutions and to report the result of its findings with any recommendations it may wish to make at the Convention to be held next year. This would surely tend to unity of work in the Institutions and would enable us to make closer our relations to the College at Washington.

We have undertaken in the Ohio School to do some of this work in the higher branches of Latin, Algebra, Physics, General History and Literature. One year of work along this line has encouraged us to make this recommendation. There is not a doubt in my mind about the deaf children making as rapid progress in these studies as the hearing children. In fact, I think their information is more perfect, and when they are given the language with which to express themselves, the deaf children will have the best of the high school training. Having taught the graduating classes in the public school for ten years, I feel I know something of their success in the acquisition of knowledge. The advantage of the deaf child will arise from the fact of its constant application to work and the concentration of all its faculties upon the school work, whereas the society in which the hearing child lives diverts its attention to the detriment of its education. Moreover, the discipline of parents is often so feeble that no study is done by the hearing child at home, and consequently but little in school. It, therefore, absorbs merely enough to make the necessary grade to pass. But in the Institution the hours are regular, the discipline is strict, and the results are consequently better.

I, therefore, commend most heartily to this Convention a more thorough training from the first year to the tenth year of school and to devote the eleventh and twelfth years to high school studies.

J. W. JONES,

Superintendent of the Ohio Institution, Columbus, Ohio.

PARAGRAPHS.—VII.*

Natural History.—Boys seem to be born naturalists, as witness the toads and other living creatures found in the usual small boy's pocket; but girls, at least some of them, have to be educated up to it. Boys have none of the feminine horror of a mouse, and a live mole has, to my own knowledge, entered the school-room in the handy receptacle of masculine clothing. The teacher did not discover the presence of the animal until it bit the finger of its captor, and then it was taken out and placed on the table, to be used as an object-lesson, and a good one it proved to be. Another time a sleeping bat suspended from a twig was brought to me, and the class had a fine view of him without disturbing his slumbers.

Directing the pupils' attention to the varying phases of insect or animal life other than their own is of double benefit, for it not only gives them an increase of knowledge or rids them of idle fears, but fills up what might otherwise prove an hour spent in devising mischief. Many a boy has been hindered from robbing a nest, and many a hapless bird has been carefully tended, owing to the new desire to "watch what they do and tell it in class to-morrow." I have no special liking for "crawly, creepy" things myself, but I have been able to overcome much of my repugnance by seeing the children's interest. In one instance, however, I most ignominiously failed. A snail was under discussion—one of the shell-less kind than which nothing can be more repugnant, and in order to prove the correctness of what I had considered an extravagant assertion as to its length, the pupil had volunteered to bring it into the class-room. I consented, and she (for it was a young lady) soon returned with it rolled in a large newspaper. After placing it on my desk,

* Continued from the last volume of the *Annals*, page 413.

I found myself incapable of opening the wrapper, and the stress of the situation was only relieved by the pupil's saying, "I was mistaken. I think it has shrunk." I was thus enabled to retire from the field with seeming dignity, and said, "Well, then, we will not open the paper." I owned up to my failure, however, and the class rather enjoyed it. I have no hesitancy in saying to a pupil, "I do not know," in reply to a question he has asked, and I have never found that his respect for me has been diminished thereby. I am much more ashamed to say, "I have forgotten," but to either phrase I have always added, "I will try and find out for you," and this promise has always been kept.

After a certain talk on ants and their ways, the next morning brought me this account of the previous afternoon: "Some boys and I went up on the hills. Bert found a live scorpion in a hidden place where the sun does not shine. I carried it back to the school-ground in a paper. The boys wanted to know what the ants would do with it, so I put it on the ground near an ant hole. Many ants came and began to fight with the scorpion. In a little while the scorpion was dead. The ants dragged it into their hole to eat it." Then the class entered into a discussion of the question asked by one of the pupils as to how, if the scorpion was poison, the ants could eat it and not die.

Another boy brought this item: "A man weighed bees without honey and counted them 5,600 in one pound. After they gathered honey, and the man again weighed them. In one pound 1,600 bees. Different!" This was afterward written on the large slate and the word "*pollen*" substituted for "honey." Then it was suggested that the class find out how much the pollen weighed. They easily ascertained that it equalled the weight of 4,000 bees; but how much did 4,000 bees weigh? A little further analysis showed them the desired amount.

It is not so much the aim in this special line to impart

knowledge as it is to open up the way to interest in good things, that the child may, during leisure hours, neither seek the evil nor give the evil an opportunity of seeking him. Many things may be found that the children will voluntarily investigate during playtime, and which the books they use do not contain. The school-days form only a small fraction of a lifetime, and the lines they can follow without extraneous assistance are by far the most valuable. Spiders with their trailing webs or spinning their ladders from desk to floor over and over again; flies feeding on sweets placed for their consumption, caterpillars with their hairy coverings, moths chilled by the night air but reviving in the warmth of the school-room; all these have showed us through the magnifying-glass their wondrous beauty and led the pupils to seek their outdoor haunts and watch their ways. There is not an item of life which may not prove a seed from which a plant-lesson can grow.

Oh! "Earth's crammed with heaven
And every common bush aflame with God."

Alliteration.—Very often children who have become thoroughly tired of practicing a certain sound will take it up with pleasure if it is placed in an alliterative sentence and, at first, will even seem unaware that they are saying it over and over again. The following have been used lately in the school-room:

Five funny fellows fell flat on the floor.
I saw Sarah sew seven seams since supper.
The stairs were steep, still Stephen strode straight up.
Shall I show the Shetland shawl in Shasta?
Don't chide me for buying a choice chair, the cheap ones were charred.
I hope Hattie will have a happy home on the hill.
I wore my scarlet skirt and scarf and skated off to school.
My uncle thinks Frank sang wrong this morning.
We wept while we walked the weary way that led to western waters.
Answer quickly this queer question, "Can quails quack?"

After a few of the sentences had been written on the slate and the object of their writing was apparently un-

derstood, the children were asked to contribute others of their own construction and some very queer combinations followed. In many instances their attention was devoted to the spelling only and they were content if the majority of the words began with the same letter, as "Charles called on his city cousin," disregarding the fact that of the four "c's" given three were unlike in sound. It required considerable experimenting before they gained a correct idea as to what was desired.

When this line of work began to pall, the questions were varied, and they were asked how many of the specified sound were given in a certain sentence. In the second of the examples on the slate, several of the pupils omitted counting the second "s" sound in the word "since," and in the eighth, a number failed to discover the "ng" sound in "Frank" (Fra^{ng}k) and "thinks" (thingks), though they had had many a lesson on that very subject.

Then the question was again changed to "How many silent letters are in this sentence?" This led to a more careful analysis of the words before pronouncing them aloud. It was interesting to watch the pupils softly repeating a word over and over, deciding one moment that such and such letters were not sounded and the next entirely reversing their decision. When they eliminated too many, they were required to write the abbreviated form and then they readily saw their mistake. Words in which the letters took other sounds than those naturally belonging to them were of course the most puzzling. In such cases the children were shown that if that special letter were removed the word could not be pronounced correctly, and it must, therefore, be allowed to remain as a representative of the sound given. The "ph" in "emphasis" and the "gh" in "enough" were retained despite the protestation of the children that neither were spoken ("o" in the latter word they admitted was valueless). It was only when "em-a-sis" and "enu" were written that they saw the necessity of their retention.

I have found these alliterative exercise of much value, and the more natural the sentence the greater the benefit. Several of the children after reading aloud, "Answer quickly this queer question, 'Can quails quack?'" replied with an emphatic "No! *ducks* quack," as though that were the aim of the sentence, quite unconscious of the fact that a drill on "kw" had been given.

The interest of the older pupils will not be lessened should you tell them that the "first species of verse found in the British Isles depended solely on alliteration for its poetic form or on the recurrence of accented syllables beginning with the same letter."* At the present day "alliteration" often seems to give an added force to a thought and at times even versifies plain prose. Take, for instance, the sentence containing the "w" exercise and change it to the following, "They cried while they trod the dusty road that led to distant rivers," and we find much of the poetic feeling eliminated, yet the oft recurring "d" still lends a semblance of poesy to the line. Talks on literature may also have such sentences introduced, and if those containing sounds difficult of pronunciation are given, the teacher will accomplish a double result.

I do not consider it absolutely a teacher's duty so to arrange each lesson that it will be perfectly palatable to the child, for there are many tasks about which no such arrangement can be made, but I do think that when a drill has been so often repeated that its approach is viewed with repugnance, it had better be dropped for the time being or else be presented in some entirely new form. It is in this way that "apt alliteration's artful aid" has served my purpose.

L. MOFFAT,

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[TO BE CONTINUED.]

* "English Versification," Wadham, London.

SCHOOL ITEMS.

American School.—Mr. William P. Williams, steward, while driving in Hartford in September last, was struck by a trolley car and so seriously injured that he died in a few days. Mr. Williams had filled the office of steward for more than seventeen years. He was an able business man and an efficient and faithful officer of the Institution. He was also prominent in the community outside, especially in church work, and his loss is deeply felt.

Central New York Institution.—Miss Laura C. Wing, a daughter of the late George Wing, and a recent graduate of the Normal Department of Gallaudet College, has been added to the corps of instruction.

Florida Institute.—Miss Tillinghast has resigned her position as teacher to be married. She is succeeded by Miss Sallie W. Mabry, formerly a teacher in the Alabama Institution.

Indiana Institution.—Miss Amelia De Motte, a daughter of Dr. W. H. De Motte, and Miss Tillie Garman have been appointed teachers in the Oral Department, and Miss Nellie J. Schrock and Miss Olive Newlin in the Kindergarten Department.

Iowa School.—Mr. George L. Wyckoff, who was connected with this school from 1883 to 1898, died suddenly at Omaha, Nebraska, September 25, 1898, of heart disease, aged 48. Mr. Wyckoff was born in Marshall, Oneida County, New York, January 22, 1850. His father and mother were both deaf-mutes. In 1864 he removed to Iowa with his parents, and later to Kansas. He entered upon the work of deaf-mute instruction as a teacher in the Kansas School in 1873, and remained there ten years, the last year as superintendent. In 1883 he was appointed a teacher in the Iowa School, and three years later was promoted to the superintendency. In 1887, when the domestic and educational departments were separated, he remained in charge of the educational department with the title of principal. Last summer he resigned this position and had arranged to engage in business in Kansas

City when death suddenly came upon him. He leaves a wife and four children; one, a daughter, is a teacher in the Illinois Institution. Mr. Wyckoff was a zealous and successful teacher, devoted to the welfare of the deaf, beloved by his pupils and associates.

Mr. E. E. Clippinger, formerly of the Wisconsin School, has been appointed Principal of the School; Mr. W. O. Connor, Jr., from the Washington State School, and Mr. Robert D. Hoyt, from the New York Institution, have been appointed teachers.

Louisiana Institution.—Mr. Charles P. Gillett, who was for several years Superintendent's secretary in the Illinois Institution, and for one year Acting Superintendent of the Minnesota School, has received an appointment as teacher. The opening of the Institution is postponed on account of the prevalence of yellow fever in the State.

Maryland School for the Colored.—Mr. D. E. Stauffer, Jr., Resident Principal, died at his home in Baltimore, Maryland, September 28, 1898, of typhoid fever. Mr. Stauffer was a native of Frederick county, Maryland. He was educated in the public schools of the State, graduating from the Normal School in Baltimore at the head of his class. In 1888 he was appointed a teacher in the department for the blind, and in 1891 Resident Principal. He served the School faithfully in both capacities, leaving nothing undone that could promote its welfare. A wife and daughter survive him.

Michigan School.—At the September meeting of the Board of Trustees the resignations of Misses Adelaide Rogers, Helen M. Haynes, and Leah J. Beach were accepted. Miss Gertrude Wilder, teacher of physical culture, was also released from her contract for the coming year. The following, who had been employed as temporary teachers, were permanently engaged: Mr. Arlington Eickhoff, B. A., a graduate of this School and of Gallaudet College, and Misses Emma D. Farnum, Ina Grear, and Fannie Thayer, who spent last year in the normal class of this School. Mr. Robert Erd, B. A., a graduate of the Illinois Institution and of Gallaudet College, has been appointed instructor in physical culture. The State Board of Charities and Corrections has allowed the request of the Trustees for a new school building at \$75,000.

Mississippi Institution.—The opening of the school is again postponed this year on account of the prevalence of yellow fever in Jackson. It is feared it will not be possible to resume work until near Christmas. Mr. Dobyns is at Mississippi Springs, Raymond, Miss., while the "immune" matron, Miss Cabaniss, remains at the Institution.

Ontario Institution.—Mr. T. C. Forrester, late of the Belfast, Ireland, Institution, Miss Nina Brown, who has taught in the public schools of the Province, and Mr. Michael J. Madden, a former pupil of this Institution and a graduate of Gallaudet College, have been added to the corps of instruction.

Rhode Island Institute.—The Legislature this year appropriated twenty-five thousand dollars to be expended on additions to the Institution dormitories. At the beginning of the school year in September work on the building was still unfinished and it was found impossible to begin then. The opening was therefore postponed until Tuesday, the eighteenth of October.

South Carolina Institution.—Miss Virginia E. Walker is succeeded in the oral department by Miss Elizabeth Menefee, who was trained for the work by Miss Mary McCowen, and Miss Mauzy is transferred to that department to take the place of Miss Jane M. Washington, who resigned to teach in Nebraska. Miss Robina L. Tillinghast, a daughter of Mr. David R. Tillinghast, takes Miss Mauzy's place. Miss Luella Fowler, a graduate of the Ohio Institution and of the Cleveland Art School, succeeds Miss Nettie Crosby, who has gone to the Michigan School as instructor in art.

Texas School.—Mr. George H. Putnam, who resigned to teach in the Kansas School, is succeeded by Mr. J. H. W. Williams, formerly secretary and steward. Mr. T. A. Rose succeeds Mr. Williams as secretary and steward.

Wisconsin School.—Miss Myrtle Long, a sister of Mr. J. Schuyler Long, has been appointed teacher.

MISCELLANEOUS.

Ohio Legislation.—The following act, providing for the education of deaf-blind children, was passed by the last General Assembly :

SECTION 1. *Be it enacted by the General Assembly of the State of Ohio,* That, on and after the passage of this act, the institution for the education of the deaf and dumb shall also be open to receive such blind and deaf children, residents of the State, as the trustees and superintendent judge from reliable information and examination to be suitable persons to receive instruction therein, and the superintendent is hereby authorized to employ a suitable teacher or teachers, and nurse or nurses, and to make all necessary arrangements for the instruction and care of such blind and deaf children as may be admitted. The compensation of said teachers and nurses shall be fixed by the trustees. No such deaf and blind child shall be admitted under four years of age, or shall remain more than twelve years, or such a part thereof as the superintendent thinks its progress justifies; and all rules and regulations, which apply to the admittance and education of the deaf and dumb, shall apply to the deaf and blind so far as the same are applicable.

SECTION 2. The trustees of said institution, when it seems to them fit and proper, shall provide for the education of any deaf and blind child at its home, the teachers to be appointed and directed the same as when the child is placed in the institution.

SECTION 3. This act shall take effect from and after its passage.

The following act, "authorizing school districts managed by boards of education or school councils to establish and maintain day schools for the deaf, and authorizing payment therefor from state common school funds," also passed :

SECTION 1. *Be it enacted by the General Assembly of the State of Ohio,* That upon application by a board of education or school council of any school district in this State to the State commissioner of schools, he shall grant permission to such board of education or school council, and such board of education or school council shall thereupon be empowered to maintain within its limits one or more day schools, having an average attendance of not less than five pupils, for the instruction of deaf persons over the age of three and under fifteen years, residents of the State of Ohio.

SECTION 2. Such board of education or school council, which shall maintain one or more day schools for the instruction of the deaf, shall report to the State commissioner of schools annually, and as often as such State commissioner shall direct, such facts concerning such school or schools as he may require.

SECTION 3. The county auditor in each county is hereby authorized and directed to apportion and the county treasurer to pay out of the State common school fund received by such county, to the treasurer or other financial officer of such board of education or school council, maintaining such school or schools for the instruction of the deaf, the sum of one hundred and fifty dollars for each deaf pupil, resident of such county, instructed in any such school for at least nine months during the school year, and a share of such sum proportionate to the term of instruction of any such pupil as shall be so instructed less than nine months during such year. If no such school shall be maintained in any county, but persons residing in such county shall attend such school in another county, then the county treasurer of the county not maintaining such school shall apportion and pay to the financial officer of the board of education or school council of such other county the amount above specified for each pupil attending such school in such other county.

SECTION 4. The sums provided in the next preceding section shall be paid by such county treasurer as soon as may be after the receipt by him of the State common school fund in each year, upon satisfactory proof being made to him by the president or clerk of such board of education or school council maintaining such school, of the number of pupils instructed in such school or schools, and their residences, and the period of time each such pupil shall have been so instructed in such school or schools for the preceding school year.

SECTION 5. All teachers in such schools shall be appointed by the State commissioner of schools upon application of the board of education or school council of the school district maintaining such school or schools; the State commissioner of schools to have the power to remove such teachers for cause. No person shall be appointed to teach in any such school who shall not have first obtained a teacher's certificate as provided by law, and who shall not have received specific instruction in the teaching of the deaf for a term or not less than one year.

SECTION 6. The State school commissioner shall select some competent person to inspect all day schools organized under this act, or by other authority, and shall cause an inspection to be made of said schools at least twice a year, and said person so appointed shall make a written report to the state commissioner of common schools of the buildings in which said schools are being held, the method of instruction and all other matters which may seem to be of interest and profit to the education of the children in said schools.

SECTION 7. This act shall take effect and be in force from and after its passage.

Conventions of the Deaf.—In addition to the conventions of the deaf mentioned in the last number of the *Annals* as

having been held this year, there were also conventions or school reunions in Michigan, Kentucky, and Texas, making fourteen such gatherings during the summer.

Hutton's Mimography.—We have received the following letter from Mr. James Fearon, Principal of the Halifax Institution:

INSTITUTION FOR THE DEAF,

HALIFAX, N. S., May 22, 1898.

To the Editor of the Annals:

SIR: A few days ago there came into my possession a manuscript volume, being a specimen dictionary of signs, written by Mr. George Hutton, father of Mr. J. Scott Hutton, late Principal of this Institution. I consider it of immense historical value, and I feel that teachers of the deaf would be greatly interested in its publication, being, as it is, a unique work in itself. The history of the matter is exceedingly interesting.

Over seventy years ago Mr. George Hutton, a teacher of the hearing as well as of the deaf, commenced the production of a dictionary of signs. Nearly twenty years afterwards a lady in Dublin, Ireland, offered a prize to teachers of the deaf for a system of mimography, and Mr. G. Hutton became a competitor and forwarded her his work. A committee of examiners was appointed, but Mr. Hutton's work being the only one offered in competition the matter was allowed to stand over and somehow or other the volume was mislaid. In 1872, Mr. J. Scott Hutton brought the subject of his father's system of mimography before the Convention held at Indianapolis, and a committee was appointed to investigate the matter and report at the next Convention. Mr. Hutton wrote to the lady above referred to in Ireland for his father's production. As far as I can learn there was no response to his communication, and it was only the other day, after a lapse of twenty-six years, the author and the son of the author having since both passed away, that a reply in the form of the book itself and Mr. J. Scott Hutton's letter of June 18, 1872, came into my hands.

If the profession think the work is of sufficient interest and importance, it is intended to publish it through the Volta Bureau.

Yours sincerely,

J. FEARON.

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UNDER THE DIRECTION OF

J. WILLIAMS, OF CONNECTICUT, R. O. JOHNSON,
OF INDIANA, J. E. RAY, OF NORTH CAROLINA,
A. L. E. CROUTER, OF PENNSYLVANIA,
AND D. W. McDERMID, OF MANITOBA,

Committee of the Conference of Superintendents and Prin-
cipals of American Schools for the Deaf.

VOL. XLIII, No. 6.

NOVEMBER, 1898.

WASHINGTON, D. C.

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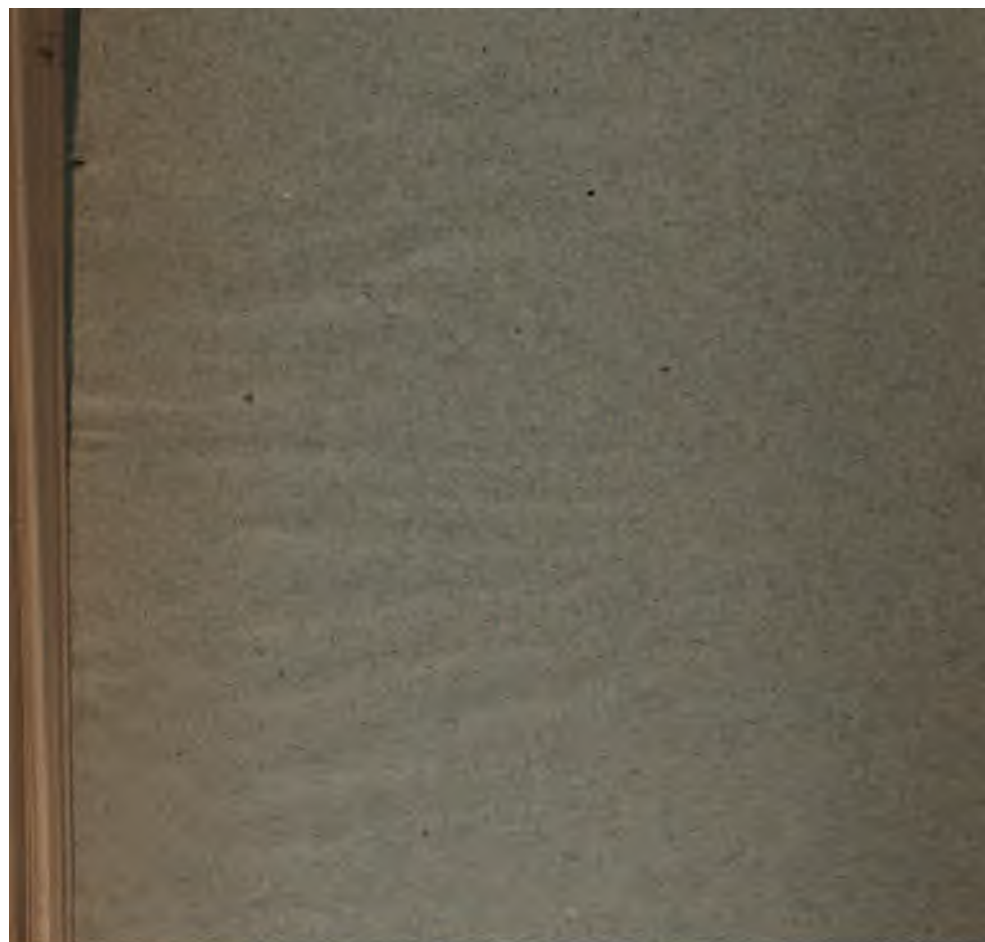
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